Savannah River Operations Office

U.S. Department of Energy
Savannah River

Accelerating Cleanup:
Focus on 2006,
Discussion Draft

Dr. Mario P. Fiori
Manager

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Dr. Mario P. Fiori, Manager

Contacts

John Pescosolido, Director
DOE Planning and Budget Division
(803) 725-5590

Clay Jones, Manager
Program Integration
WSRC, Site Program Integration
(803) 725-4409

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EXECUTIVE SUMMARY

The Savannah River Site (SRS) Accelerating Cleanup: Focus on 2006, Discussion Draft is a key component of the Department of Energy's (DOE) process for managing the legacy of nuclear materials production following the end of the Cold War. This legacy, which is largely the responsibility of DOE's Environmental Management Program (EM), includes contaminated facilities throughout the DOE complex, many of which contain special nuclear materials and various wastes. Additionally, these facilities have varying degrees of environmental contamination (soil and groundwater); the majority of which will require some remedial action to address environmental and health risks. In the broad sense, dealing with these problems is considered "clean up" of the Cold War legacy. The purpose of the Discussion Draft process is to provide a framework for guiding national and local decisions that must be made to maximize attainment of the Environment Management clean-up mission, both across the DOE complex and at SRS.

This process began in early 1996 when Assistant Secretary Alvin Alm assumed responsibility for the DOE Environmental Management Program. Each DOE site was challenged to accelerate its EM program activities to achieve a vision of completing the clean up at most sites by 2006. It was recognized that for some sites, like SRS, the clean up would extend beyond 2006 due to the variety of nuclear materials and extent of environmental risk that must be addressed. However, the challenge for SRS is to reduce the time and cost of clean up, waste treatment, nuclear materials disposition and other stabilization activities. SRS issued the site input to the draft Ten-Year Plan in July 1996. The draft plan laid out an aggressive program for Environmental Management at SRS which significantly improved life cycle cost and schedule performance over previous planning documents and budget submittals. It was the subject of considerable stakeholder and management review.

The July 1996 draft served as the first step in planning the implementation of the Alm vision by establishing the base from which a cost effective, integrated DOE complexwide clean-up plan could be built. This integrated plan will serve as the “Discussion Draft” which will be issued for public review and comment during the summer of 1997.

Since the July draft, the Department integrated the individual plans submitted from each of the sites, analyzed potential efficiencies which could result from inter-site cooperation, and reassessed the potential future funding levels. Based on these analyses, the Department issued new guidance in December 1996 for an update to the July submittal. For SRS this guidance:

- Reduced funding levels by $50 million per year relative to the July 1996 assumption;
- Challenged the sites to absorb the effect of inflation on buying power;
- Challenged the sites to aggressively pursue additional cost efficiencies.

The revised SRS draft Ten-Year Plan submittal of February 28, 1997, which is the basis for the DOE National Discussion Draft, met all regulatory and legal commitments but failed to meet the Defense Nuclear Facilities Safety Board (DNFSB) material stabilization commitments due to insufficient funding. Subsequent reevaluations of this submittal by the Department of Energy Headquarters (DOE-HQ), identified the need for additional cost efficiencies and a redistribution of available funding to sites having the greatest difficulty in meeting commitments. For SRS, revised guidance directed:

- Meeting all commitments (a “compliance first” approach);
- Reducing the funding target by $22 million per year;
- Adding an additional DOE-HQ cost efficiency challenge to ensure that a full compliance plan could be constructed within available funding.

This revision updates the previous draft using the current funding targets, aggressive efficiency assumptions, and the requirements listed below:

- Local and national stakeholder comments and concerns must be addressed.
- All existing enforceable compliance agreements must be met.
- Program specific decisions and planning conducted since the last plan must be incorporated.
- Operations of SRS processing facilities must be optimized to meet SRS Defense Nuclear Facilities Safety Board (DNFSB) commitments, while at the same time ensuring a viable option for meeting DOE complexwide DNFSB 94-1 Implementation Plan milestones for selected at-risk materials.
- SRS facilities must remain viable alternatives for meeting the needs defined in various Material Disposition (MD) studies for fissile materials.
- Updated projections for productivity improvements and cost reductions, based on aggressive management challenges are needed.

To optimize the implementation of the EM mission and vision, SRS has focused on doing the most important work first, coupled with lowering the cost of doing business. Aggressive near- and long-term productivity enhancements totaling about $4.3 billion by 2006 are assumed in this Discussion Draft. (These enhancements are discussed in greater detail in a latter section.) Program-specific priority decisions are based on the SRS Integrated EM Priority List which is used as a management planning tool and has been developed over the past several years with extensive stakeholder involvement and participation. (See Section III.) SRS has updated its stakeholder strategy to ensure timely and efficient stakeholder participation in finalizing the Discussion Draft during the summer of 1997.

STAKEHOLDER INVOLVEMENT

The Savannah River Operations Office of the Department of Energy believes that stakeholders should be involved in the development of the Accelerating Cleanup: Focus on 2006, Discussion Draft and the fiscal year budgets. SRS began its public participation plan activities in June 1996, prior to the issuance of the draft Ten-Year Plan, and since that time there have been more than 25 public participation meetings or activities with various stakeholders. Several briefings have been held for public officials such as the Environmental Protection Agency and the South Carolina Department of Health and Environmental Control. SRS began to work with stakeholders on the Site’s budget in 1994 and have continued discussions on the budget through the Citizens Advisory Board (CAB). Several presentations and discussions have occurred with organized groups that support environmental justice initiatives and efforts.

National and Site Discussion Drafts are scheduled to be released in June for a 90 day public comment period. The SRS draft Public Participation Plan is contained in Section VI. The schedule of meetings are shown in Attachment A to Section VI and questions and comments received to date can be found in the Responsiveness Summary, Attachment B to Section VI. Some upcoming key events to solicit stakeholder input include:

- Public release of the Accelerating Cleanup: Focus on 2006, Discussion Draft - June kickoff of 90-day public comment period
- Workshops on the National and Site Discussion Drafts - early June
- Public meeting with Al Alm - To Be Determined
- Public meeting with SRS Citizen's Advisory Board - July
- Public comment period ends - September 9, 1997

Additional meetings and workshops will be held throughout the development process. Specifically, meetings will be held with the SRS CAB and general public to discuss the National and SRS Discussion Drafts and the fiscal year 1999 budget. Briefings will continue for SRS regulators and other public officials. These activities will lead to development of the Draft 2006 Plan which will be released for a public comment period in the fall. In early 1998, the Initial 2006 Plan will be released. Comments on the National Discussion Draft relating to cross-site or policy issues should be addressed to U.S. Department of Energy Mr. Gene Schmidtt, P. O. Box 44818, Washington, D.C. 20026-4481. The toll free number for comments is 1-800-736-3282 and the E: Mail address is FOCUSON2006@EM.doe.gov

EM in a parallel effort has asked sites to involve stakeholders in the formulation of the FY99 budget. The EM FY99 budget is being developed concurrently with the Discussion Draft. In July, EM will be holding a national feedback session to discuss the EM national FY99 budget. The options and alternatives described in the Discussion Draft and future iterations of the 2006 Plan will impact budget formulation and execution activities. This planning process will allow EM to develop annual budgets in the context of long term objectives.

COMPLIANCE AGREEMENTS AND COMMITMENTS

Many activities at SRS are subject to compliance agreements with external regulatory agencies such as the South Carolina Department of Health and Environmental Control (SCDHEC) and the Environmental Protection agency (EPA). The Administration's policy (Executive Order 12088) is to comply with its regulatory commitments. In developing this plan, the SRS objective was to ensure that activities relating to formal commitments were adequately supported. This includes the Environmental Restoration Program and High Level Waste Program commitments cited in the Federal Facility Agreement and Resource Conservation and Recovery (RCRA) permit, and the Waste Management Program commitments in the Site Treatment Plan Consent Order. In some instances, options are being considered which may have short- and long-term advantages over the baseline planning assumptions in current commitment documents. SRS will continue its ongoing dialogue with appropriate regulatory agencies to optimize solutions to environmental problems and resolve other program issues consistent with the established regulatory process defined in the agreements.

In addition to formal regulatory commitments, SRS has made a number of other commitments in implementation plans responding to recommendations made by the Defense Nuclear Facilities Safety Board (DNFSB). For the most part these agreements relate to nuclear material stabilization and spent fuel management. While not subject to formal enforceable action, these commitments are treated with the same high priority as legal obligations. These Programs will be impacted by the outcome of various national decision making processes which should reach conclusion over the next several years. Most of these decisions involve management of materials from a complex-wide perspective and require that significant issues be addressed. SRS has adopted a phased canyon operating strategy in this plan to support potential solutions to these difficult, national problems by providing complexwide flexibility and backup capability for stabilizing certain nuclear materials from other sites while assuring our ability to meet existing commitments for stabilization of legacy materials at SRS.

The phased two-canyon strategy provides for the most timely stabilization of SRS nuclear material and significant mortgage reduction opportunities. In this approach, both F and H Canyons will be operated until early FY 2000 to maximize the utilization of each canyon's capabilities. By early FY 2000, the F-Canyon Purex Process and FB-Line metal production will be shut down while H Canyon continues to operate to FY 2004 to complete the stabilization of remaining DNFSB 94-1 materials.

Resolution of program issues in this area is being sought through ongoing dialogue with involved organizations. Specific unresolved issues are discussed in appropriate sections of the SRS and National Discussion Drafts.

KEY PROGRAM END STATES

A summary of the work supported by this Discussion Draft, end state descriptions, and other performance measures are shown in Table I-1. Significant clean-up performance indicators include:

- Complete remediation projects for all high risk environmental waste sites
- Produce 2080 canisters of vitrified high level waste, representing 37 percent of the waste inventoried; and closing 14 high level waste tanks.
- Stabilize SRS nuclear materials by 2002, including plutonium solutions and solids, uranium, neptunium, SRS spent fuel (i.e., DNFSB 94-1 at-risk fuels), and americium and curium. However, stabilization of some plutonium and neptunium materials will be delayed until 2004, which is two years beyond the original DNFSB 94-1 commitments.
- Construct and operate a new Actinide Packaging and Storage Facility for plutonium.
- Construct and operate a Spent Nuclear Fuel Transfer and Storage Service Facility.
- Start up and operate the Consolidated Incinerator Facility (CIF); and transuranic or TRU waste road ready for shipment.

The Program-specific narratives for meeting the EM mission and vision are presented in Section VII. The Project Cost Profiles for the Discussion Draft are shown in Table I-2. The real benefit of these outcomes is that public, worker and environmental risk and the long term cost to the taxpayer are reduced dramatically over a much shorter period than in previous planning scenarios. This is possible due to the aggressive nature of the assumed efficiency improvements.

EFFICIENCY IMPROVEMENTS

To achieve the objective of the EM mission and vision and to ensure the viability of SRS in supporting the resolution of national materials issues, SRS incorporated aggressive near- and long-term productivity and efficiency enhancements into this Discussion Draft. These enhancements fall into three general categories:

- **SRS enhancements incorporated into the project estimates**
  - General and mission support enhancements assumed in the fiscal year (FY) 1998 Out Year Budget (OYB) totaling $20 million per year versus the FY 1997 baseline.

- Additional general and non-critical mission support enhancements totaling $75 million per year beginning in FY 1998.

- **SRS management challenge to be implemented by 2006**

  - Enhancements not yet specifically defined but required to off-set the effects of inflation (assumed at 2.7 percent per year)

- **DOE-HQ Efficiency Goals to be implemented by 2006**

  - Additional efficiency challenge given to SRS by Department of Energy Headquarters (DOE-HQ)

The savings profiles for these aggressive near- and long-term productivity enhancements are delineated in Table I-3 and total more than $4.3 billion by 2006.

For the first category of enhancements, the current project baselines were evaluated along with support functions to define options for eliminating or reducing effort on tasks which, while important, are less critical to the accomplishment of the core clean-up mission. This analysis also included re-engineering major site functions such as operations, maintenance, and business activities, building on the experience of successful companies in the commercial sector. The results of the analysis concluded that about $95 million could be saved annually and the project estimates were adjusted to reflect these efficiencies.

The second category of SRS productivity enhancement focused on inflation impacts for the "outyears" (FY 2000-FY 2006). The approach taken in this category was based on a management challenge to continually improve cost performance to offset inflationary impacts. This means that the site, as a whole, would need to improve its cost performance at least by 2.7 percent each year, the assumed inflation rate. Unlike the first category of efficiencies, this second category was included in the plan as a EM Management Challenge "project" which defined the annual savings required to offset inflation. By 2006, the cumulative savings required to offset inflation totaled over $ 960 million.

The final category of efficiencies represents goals established by DOE-HQ for additional operational and support cost reductions. This category totals more than $2.3 billion by 2006. As with the SRS management challenge, a second efficiency Project (SR-HQ01) was created to reflect this challenge.

While cost cutting through efficiency improvements has been the norm over the past several years, SRS sees the opportunity for additional efficiency gains in business processes and systems, operations, (especially in new facilities currently undergoing start up), and new technologies. Examples include:

- SAP - This replacement business system for the site has high promise of producing efficiency gains in the longer term. It is a fully integrated suite of modules governing all aspects of site operations and is among the leading commercial software choice of private industry. Expectations are that the integrated systems approach will lead to simplification of business processes and data management.
- DWPF - This facility is still in its infancy relative to operations. If it is like most large, new production facilities, then, subsequent to the “bugs” being worked out, gains in operational efficiency may be possible.
- Technology Advancement - The probability of break-through technologies in clean up is very real. Much has been invested in developing new technologies and their commercialization. Should even a few of the technologies prove-out, significant efficiency gains could be realized.

SRS is fully committed to aggressively pursuing cost cutting measures to enhance the accomplishment of critical work during a period of declining funds availability. If successful, SRS will be able to meet the compliance commitments and expectations and, potentially, be able to accelerate clean-up activities. While this is optimistic, it is realized that two future events could prevent SRS from achieving this objective. A reduction in SRS funding or failure to realize these performance enhancements could force a reevaluation of the compliance first approach which is the basis of this Discussion Draft. If this comes to pass, SRS will work closely with regulators and other stakeholders to address compliance requirements and other site activities, and determine appropriate priorities and related funding levels.

SCIENCE AND TECHNOLOGY

The aggressive stance in this Discussion Draft on efficiency improvements makes it imperative that, at a minimum, the critical technologies identified in the Operational Baseline Summary (Section VIII) are successfully deployed on a timely basis. A total of 65 technology needs are identified in the SRS Discussion Draft. Deployment of these technologies reduces risk and accelerates the schedule for meeting end-state objectives, thereby reducing cost. A potential $2.6 billion cost savings could be realized if all the technologies were successfully deployed. These technologies are a major key to success in meeting the efficiency challenges discussed previously. These savings estimates are preliminary in nature and will be refined as the technologies are further defined, developed, and deployed. Critical technologies assumed in the SRS Discussion Draft include:

- Alternate technologies for storing spent fuel
- DWPF vitrification operations enhancements
- Alternatives to pump and treat for groundwater remediation
- Characterization, treatment, and shipment of transuranic waste

WORK SCOPE PRIORITIZATION

The aggressive assumptions on efficiency improvements represent considerable program risk. Success will require new management approaches; close communication with local and national stakeholders; open and frank communications and full cooperation with local, state, and federal regulators; and reliance on a viable prioritization process

Program-specific priority decisions are based on the SRS Integrated EM Priority List discussed in Section III. This priority list is a management planning tool which has been developed over the past several years. It includes consideration of extensive stakeholder involvement and is focused on reducing risk and improving safety within and outside the site boundaries and meeting enforceable compliance agreements. SRS will use the priority decision process to manage any potential funding issues which may arise from the aggressiveness of the efficiency enhancements in this Discussion Draft. Based on current priorities, the work that would be most significantly impacted by funding deficiencies should SRS fall short of meeting its efficiency challenges includes:

- Critical infrastructure upgrades
- Spent Fuel Alternate Technologies Project
- Consolidated Incinerator Facility full operation

- F Canyon, H Canyon, and B-Lines Phased Canyon Strategy to meet DNFSB 94-1 Implementation Plan commitments and other site materials to be processed at SRS commitments
- Plutonium storage vault construction
- DWPF/High Level Waste system operations producing more than 100 canisters per year

However, if SRS is successful in achieving a significant fraction of the efficiency improvements in this Discussion Draft, critical compliance commitments will be met. Fully meeting the efficiency challenges defined in the plan would provide resources for accelerating clean-up activities. If this should occur, SRS would focus acceleration in the following key programs:

- Environmental remediation based on site risk
- Nuclear facility deactivation
- High level waste treatment

Due to the magnitude of the efficiency challenges in total, and to the degree of uncertainty in fully achieving that level of cost efficiencies by 2006, the acceleration of the above activities has not been incorporated into the Project Baselines.

CONCLUSIONS

The results of SRS planning will be considered in national decision making, especially in the national EM Accelerating Cleanup: Focus on 2006, Discussion Draft and federal budget development. The national EM Discussion Draft also will consider options which optimize program accomplishments across the complex. Most of these potential options involve utilization of existing capabilities at one site to handle problems faced at other sites. If successful, this strategy would reduce the need for expensive new facilities being built at many sites, making more resources available to complete DOE's overall clean-up mission. Implementation of these options involves consideration of numerous technical, political, regulatory and institutional issues. Transportation risks and stakeholder issues must be evaluated. To focus consideration of these options, the site specific and national Discussion Drafts include "Action Plans" for each program element. Generally, Action Plans for options which may involve multiple sites are included in the national EM Discussion Draft. It should be noted that many of these options also are being evaluated through the National Environmental Policy Act process, or NEPA. This process, which requires public involvement, uses Environmental Impact Statements and/or Environmental Assessments to document impacts of specific actions and alternatives to assist in federal decision making. SRS has existing capabilities which are being considered in a number of "Action Plans", especially in the nuclear materials stabilization and disposition arena. These are discussed in Section VI of the SRS Discussion Draft.

As stated above, the initial draft SRS Ten-Year Plan issued in July 1996 was the subject of considerable public and regulatory review. This update includes responses to the input obtained. This new revision and the National EM Discussion Draft, scheduled to be issued for public comment in June 1997, will be key vehicles for continuing this public dialogue on the EM program. Consideration of the options described in the Action Plans should be of particular interest. SRS is planning several opportunities for stakeholders to provide input and comments on the SRS and National Discussion Drafts, as well as through the NEPA process. Involvement by all stakeholders is encouraged. Information on involvement opportunities can be obtained by calling the SRS @ 1-800- 249-8155 or through the SRS Internet Home Page at www.srs.gov. Additionally, comments on the SRS Accelerating Cleanup: Focus on 2006, Discussion Draft can be submitted electronically via the following e-mail addresses: virginia.kay@srs.gov or gail.jernigan@srs.gov.

TABLE I-1 KEY PROGRAM END STATES

Key Activities	2006 End State	Final End State Date
Environmental Restoration		
FFA compliance	Federal Facility Agreement commitment	2020
High Level Waste		
F&H Area Tank Farms maintained with evaporation operations on-going.	Surveillance & Maintenance (S&M)	2020
Effluent Treatment Facility/In-Tank Precipitation/Extended Sludge Processing/Saltstone	In operation	
Defense Waste Processing Facility in operation at 200 cans per year up to 250 cans per	In operation	
Glass Waste Storage Facility design construction.	In startup process	
Waste Removal Project to close 14 tanks by 2006 and complete by 2020.	14 tanks closed & 2080 canisters produced	
Nuclear Materials Stabilization		
H Canyon/HB-Line Stabilization of plutonium, neptunium, and spent nuclear fuel	S&M	2004
F Canyon/FB-Line stabilization of plutonium, americium, and curium spent nuclear fuel	S&M	2000
Actinide Packaging and Storage Facility.	In operation	
Spent Nuclear Fuel		
Fuel receipts and RBOF basin operations per schedule.	Receipts as per schedule	2008
New Spent Nuclear Fuel Transfer and Storage Service Facility	Privatized & in operation	
Mark 16/22 Fuel/Targets Processed	Processing complete	
Heavy Water operations (paid for by sales) & D-Area S&M	Heavy Water processed/sold	
C, K, P, & R Reactor and M-Area Surveillance and Maintenance	Surveillance and Maintenance	
Solid Waste		
Consolidated Incenerator Facility operational	In operation	2035
Transuranic (TRU) Waste road ready for shipment	Shipping in progress	
Hazardous, Mixed and Low Level Waste	Treatment and Disposal in progress	

TABLE I-2 PROJECT BASELINE (PBS) ROLLUP BY PROGRAM

Project Number	1997-2006 Total	2007-Comp Total	Grand Total	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Infrastructure													
SR-IN01	4,561	0	4,561	2,227	1,546	625	163						
SR-IN02	11	0	11	11									
SR-IN03	305	0	305	305									
SR-IN04	7,729	0	7,729	7,729									
SR-IN05	42,350	0	42,350	11,285	10,679	10,062	7,940	2,384					
SR-IN06	442	0	442	232	148	62							
SR-IN07	399	0	399	205	194								
SR-IN08	398	0	398	398	0								
SR-IN09	19,856	0	19,856	284	4,349	13,702	1,521						
SR-IN10	33,348	0	33,348	2,868	5,600	18,100	6,780	0					
SR-IN11	78,946	1,661,168	1,740,114	450	1,900	1,200	2,427	11,416	16,243	16,161	9,740	9,708	9,701
SR-IN12	185,393	3,587,925	3,773,318	16,169	17,268	17,419	17,561	18,099	18,672	19,161	19,732	20,359	20,953
SR-IN13	0	0	0	0	0	0	0	0	0				
IN Total	373,738	5,249,093	5,622,831	42,163	41,684	61,170	36,392	31,899	34,915	35,322	29,472	30,067	30,654
Spent Nuclear Fuel													
SR-SF01	174,349	85,882	260,231	31,459	32,024	34,216	15,200	9,500	9,785	10,079	10,381	10,692	11,013
SR-SF02	335,060	106,090	441,150	25,725	40,892	39,810	41,227	42,516	27,968	28,603	29,427	30,471	28,421
SR-SF03	164,597	58,022	222,619	19,235	19,750	18,945	21,124	21,852	12,038	12,362	12,716	13,111	13,464
SR-SF04	54,895	3,862	58,757	17,396	5,064	4,284	4,977	4,613	3,648	3,636	3,754	3,763	3,760
SR-SF05	4,620	0	4,620	437	886	749	364	364	365	364	363	364	364
SR-SF06	35,063	0	35,063	9,663	9,400	10,000	2,000	2,000	1,000	1,000			
SR-SF07	7,075	0	7,075	5,556	1,519								
SR-SF08	0	0	0	0									
SR-SF09	128,091	670,800	798,891	2,647	1,899	1,955	2,015	2,075	22,300	22,800	23,500	24,200	24,700
SR-SF10	2,072	0	2,072			251	1,821						
SF Total	905,822	924,656	1,830,478	112,118	111,434	110,210	88,728	82,920	77,104	78,844	80,141	82,601	81,722
Nuclear Materials Stabilization													
SR-NM01	1,658,100	1,333,600	2,991,700	172,800	189,500	182,300	178,300	162,400	159,300	147,400	150,400	155,800	159,900
SR-NM02	1,302,700	615,900	1,918,600	119,100	137,300	143,400	147,600	145,100	139,200	137,800	109,900	110,200	113,100
SR-NM03	163,700	0	163,700	20,800	20,800	56,700	38,700	25,400	1,300				
SR-NM04	2,900	0	2,900	900	900	900	100	100					
SR-NM05	0	0	0										
SR-NM06	152,800	4,521,800	4,674,600	0	0	0	0	0	30,300	33,300	37,900	25,300	26,000

TABLE I-2 PROJECT BASELINE (PBS) ROLLUP BY PROGRAM

Project Number	2007-2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
Infrastructure													
SR-IN01													
SR-IN02													
SR-IN03													
SR-IN04													
SR-IN05													
SR-IN06													
SR-IN07													
SR-IN08													
SR-IN09													
SR-IN10													
SR-IN11	41,495	58,491	66,825	76,347	87,226	99,654	113,854	130,077	148,612	169,787	193,980	221,621	253,199
SR-IN12	89,624	126,333	144,334	164,900	188,397	215,242	245,911	280,951	320,984	366,721	418,974	478,674	546,880
SR-IN13													
IN Total	131,119	184,824	211,159	241,247	275,623	314,896	359,765	411,028	469,596	536,508	612,954	700,295	800,079
Spent Nuclear													
SR-SF01	47,107	38,775											
SR-SF02	20,825	29,354	33,537	22,374									
SR-SF03	47,613	10,409											
SR-SF04	3,862												
SR-SF05													
SR-SF06													
SR-SF07													
SR-SF08													
SR-SF09	81,400	181,600	81,400	75,100	86,300	97,600	67,400						
SR-SF10													
SF Total	200,807	260,138	114,937	97,474	86,300	97,600	67,400	0	0	0	0	0	0
Nuclear Mater													
SR-NM01	682,900	650,700											
SR-NM02	456,300	159,600											
SR-NM03													
SR-NM04													
SR-NM05													
SR-NM06	111,800	159,300	181,900	207,900	237,500	271,300	310,000	354,200	404,600	462,300	528,200	603,400	689,400

TABLE I-2 PROJECT BASELINE (PBS) ROLLUP BY PROGRAM

Project Number	1997-2006 Total	2007-Comp Total	Grand Total	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
SR-NM07	16,600	275,600	292,200	0	0	500	5,500	2,600	2,000	1,400	1,500	1,500	1,600
NMS Tot	3,296,800	6,746,900	10,043,700	313,600	348,500	383,800	370,200	335,600	332,100	319,900	299,700	292,800	300,600
Facilities Deactivation													
SR-FA01	0	0	0										
SR-FA02	0	101,300	101,300	0	0	0	0	0	0	0	0	0	0
SR-FA03	0	49,000	49,000			0	0	0	0	0	0	0	0
SR-FA04	0	84,490	84,490	0	0	0	0	0	0	0	0	0	0
SR-FA05	0	33,930	33,930	0	0	0	0	0	0	0	0	0	0
SR-FA06	0	92,556	92,556	0	0	0	0	0	0	0	0	0	0
SR-FA07	0	22,291	22,291	0	0	0	0	0	0	0	0	0	0
SR-FA08	0	7,700	7,700										
SR-FA09	0	7,000	7,000										
SR-FA10	0	12,000	12,000										
SR-FA11	0	8,213	8,213										
SR-FA12	0	9,137	9,137										
SR-FA13	0	10,442	10,442										
SR-FA14	0	6,500	6,500										
SR-FA15	0	9,104	9,104					0	0	0	0	0	0
SR-FA16	14,333	4,133,713	4,148,046	2,595	1,165	1,225	1,231	1,265	1,302	1,332	1,367	1,407	1,444
SR-FA17	0	2,659,623	2,659,623	0	0	0	0	0	0	0	0	0	0
SR-FA18	49,181	270,736	319,917	10,153	13,413	3,887	3,165	2,870	2,961	3,039	3,129	3,229	3,335
SR-FA19	0	48,415	48,415										
SR-FA20	80,718	1,181,827	1,262,545		9,162	10,421	10,101	9,013	7,934	8,142	8,387	8,653	8,905
SR-FA21	0	0	0										
SR-FA22	0	64,943	64,943										
SR-ER08													
SR-ER09	23,414	0	23,414	4,700	4,431	3,534	3,458	3,643	3,648				
FD Total	167,646	8,812,920	8,980,566	17,448	28,171	19,067	17,955	16,791	15,845	12,513	12,883	13,289	13,684
Environmental Restoration													
SR-ER01	314,088	513,130	827,218	3,740	3,723	8,468	28,339	28,939	24,108	32,074	54,592	70,695	59,410
SR-ER02	326,686	69,872	396,558	26,936	14,932	33,606	37,729	21,562	30,841	45,109	50,713	35,875	29,383
SR-ER03	124,752	46,299	171,051	4,424	6,436	3,480	2,425	24,819	40,391	23,025	9,548	5,473	4,731
SR-ER04	66,634	14,980	81,614	3,341	7,344	13,531	10,114	8,135	6,091	3,738	4,866	4,853	4,621
SR-ER05	47,851	35,877	83,728	1,616	3,715	3,643	3,079	5,066	5,942	2,557	1,382	4,105	16,746
SR-ER06	155,018	147,303	302,321	22,338	28,786	19,639	15,383	10,526	10,602	14,900	11,421	9,146	12,277

TABLE I-2 PROJECT BASELINE (PBS) ROLLUP BY PROGRAM

Project Number	2007-2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
SR-NM07	6,800	9,700	11,100	12,700	14,500	16,500	18,900	21,600	24,600	28,200	32,200	36,800	42,000
NMS Tot	1,257,800	979,300	193,000	220,600	252,000	287,800	328,900	375,800	429,200	490,500	560,400	640,200	731,400
Facilities Deact													
SR-FA01													
SR-FA02	9,900	91,400	0										
SR-FA03	3,300	45,700	0										
SR-FA04	32,063	52,427	0	0									
SR-FA05	14,796	19,134											
SR-FA06	38,602	53,954											
SR-FA07	22,291	0	0										
SR-FA08	7,700												
SR-FA09	7,000												
SR-FA10	12,000												
SR-FA11		8,213											
SR-FA12				9,137									
SR-FA13				10,442									
SR-FA14	6,500												
SR-FA15	9,104	0	0	0	0	0	0	0	0	0	0	0	0
SR-FA16	7,870	8,578	160,000	185,600	215,296	249,743	289,702	336,055	389,823	452,195	524,546	608,474	705,830
SR-FA17	0	60,600	101,000	117,160	135,906	157,650	182,875	212,135	246,076	285,448	331,120	384,099	445,555
SR-FA18	15,590	9,214	10,527	12,027	13,741	15,698	17,935	20,491	23,411	26,746	30,558	34,912	39,886
SR-FA19	925	1,715	1,959	2,239	2,558	2,922	3,338	3,814	4,357	4,978	5,688	6,498	7,424
SR-FA20	22,047	33,003	40,142	52,875	63,589	72,650	83,002	94,829	108,341	123,779	141,416	161,566	184,588
SR-FA21													
SR-FA22				3,318	3,791	4,331	4,948	5,653	6,458	7,379	8,430	9,631	11,004
SR-ER08													
SR-ER09													
FD Total	209,688	383,938	313,628	392,797	434,880	502,995	581,801	672,976	778,467	900,526	1,041,757	1,205,180	1,394,286
			0										
Environmental			0										
SR-ER01	239,317	223,406	46,309	4,068	30								
SR-ER02	21,044	34,750	10,921	3,155	2								
SR-ER03	16,302	14,148	15,849	0	0								
SR-ER04	8,687	6,293	0	0	0								
SR-ER05	17,147	17,904	826	0	0								
SR-ER06	41,753	38,009	43,393	20,217	3,931								

TABLE I-2 PROJECT BASELINE (PBS) ROLLUP BY PROGRAM

Project Number	1997-2006 Total	2007-Comp Total	Grand Total	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
SR-ER07	326,006	71,496	397,502	33,551	36,566	35,290	30,514	31,364	31,872	31,857	31,807	32,243	30,942
ER Total	1,361,035	898,957	2,259,992	95,946	101,502	117,657	127,583	130,411	149,847	153,260	164,329	162,390	158,110
High Level Waste													
SR-HL01	842,299	1,227,697	2,069,996	90,165	87,227	81,080	74,298	76,548	81,457	84,243	86,636	88,867	91,778
SR-HL02	510,933	625,497	1,136,430	47,049	46,688	47,062	47,523	48,003	51,474	53,234	54,747	57,157	57,996
SR-HL03	449,890	960,903	1,410,793	20,801	26,250	44,769	35,374	38,026	40,844	43,029	46,616	76,663	77,518
SR-HL04	952,385	1,824,312	2,776,697	77,403	90,390	87,770	91,931	97,910	107,853	98,556	103,981	97,795	98,796
SR-HL05	1,722,200	3,415,200	5,137,400	136,759	145,184	159,811	160,588	170,899	177,082	191,338	196,795	182,817	200,927
SR-HL06	139,144	215,834	354,978	945	945	956	965	994	1,025	13,306	38,913	46,515	34,580
SR-HL07	221,759	438,239	659,998	19,036	19,809	22,404	23,764	21,341	21,711	22,454	23,092	23,686	24,462
SR-HL08	200,013	470,566	670,579	10,651	11,047	11,523	21,518	21,515	22,654	27,206	25,508	22,386	26,005
SR-HL09	55,999	0	55,999	2,746	6,125	15,783	9,700	11,200	10,445	0	0	0	0
HLW Total	5,094,622	9,178,248	14,272,870	405,555	433,665	471,158	465,661	486,436	514,545	533,366	576,288	595,886	612,062
Solid Waste													
SR-SW01	234,973	363,105	598,078	25,965	17,965	18,270	17,882	21,966	35,924	33,759	22,716	20,271	20,255
SR-SW02	109,238	431,559	540,797	13,136	10,673	10,633	13,673	11,029	9,988	12,692	12,206	8,523	6,685
SR-SW03	118,304	344,014	462,318	6,143	8,057	10,869	11,824	13,340	13,037	12,608	13,089	13,122	16,215
SR-SW04	81,639	443,977	525,616	8,062	10,082	8,262	7,111	7,067	7,804	8,028	8,225	8,391	8,607
SR-SW05	51,032	81,476	132,508	5,748	7,564	7,711	5,698	7,266	4,357	3,009	3,210	3,184	3,285
SR-SW06	21,480	63,804	85,284	2,944	2,381	4,725	1,495	1,542	1,584	1,629	1,678	1,724	1,778
SR-SW07	26,833	67,045	93,878	3,214	2,564	2,508	2,560	2,555	2,601	2,636	2,681	2,734	2,780
SW Total	643,499	1,794,980	2,438,479	65,212	59,286	62,978	60,243	64,765	75,295	74,361	63,805	57,949	59,605
Technology Development													
SR-TD01	122,635	0	122,635	12,382	11,394	11,460	11,466	11,838	12,176	12,459	12,793	13,161	13,506
TD Total	122,635	0	122,635	12,382	11,394	11,460	11,466	11,838	12,176	12,459	12,793	13,161	13,506
Westinghouse Total													
Total	11,965,797	33,605,753	45,571,550	1,064,424	1,135,636	1,237,500	1,178,228	1,160,660	1,211,827	1,220,025	1,239,411	1,248,143	1,269,943
DOE-SR													
SR-DO01	8,888	0	8,888	3,800	5,088	0	0	0	0	0	0	0	0
SR-DO02	490,318	7,819,140	8,309,458	53,916	52,812	54,000	55,458	56,955	58,493	38,100	39,129	40,185	41,270
SR-DO03	85,476	602,176	687,652	10,500	7,600	7,500	7,746	8,000	8,263	8,535	8,816	9,107	9,409
SR-DO04	97,709	579,163	676,872	9,225	9300	9000	9243	9493	9749	10012	10282	10560	10845

TABLE I-2 PROJECT BASELINE (PBS) ROLLUP BY PROGRAM

Project Number	2007-2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
SR-ER07	33,065	26,605	9,329	2,182	315								
ER Total	377,315	361,115	126,627	29,622	4,278	0	0	0	0	0	0	0	0
High Level Wa													
SR-HL01	380,578	415,413	431,706	0	0								
SR-HL02	208,971	243,267	173,259	0	0								
SR-HL03	324,549	276,882	280,850	78,622	0								
SR-HL04	450,265	641,642	707,419	24,986	0								
SR-HL05	856,301	1,206,029	1,325,011	27,859	0								
SR-HL06	19,391	70,249	64,688	61,506	0								
SR-HL07	105,437	150,596	174,582	7,624	0								
SR-HL08	117,734	156,619	196,213	0	0								
SR-HL09	0		0	0	0								
HLW Total	2,463,226	3,160,697	3,353,728	200,597	0	0	0	0	0	0	0	0	0
Solid Waste													
SR-SW01	39,403	56,280	65,243	75,634	87,680	38,865							
SR-SW02	169,460	240,917	21,182										
SR-SW03	96,602	103,736	76,297	60,135	5,009	2,235							
SR-SW04	226,695	118,221	47,775	51,286									
SR-SW05	14,741	20,958	23,935	21,842									
SR-SW06	7,918	11,257	12,856	13,915	12,349	5,509							
SR-SW07	11,979	17,110	19,836	18,120									
SW Total	566,798	568,479	267,123	240,932	105,038	46,609	0	0	0	0	0	0	0
Technology De													
SR-TD01													
TD Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Westinghouse ' Total	5,206,753	5,898,491	4,580,202	1,423,269	1,158,119	1,249,900	1,337,866	1,459,804	1,677,263	1,927,534	2,215,111	2,545,675	2,925,765
DOE-SR													
SR-DO01	0	0	0	0	0	0	0	0	0	0	0	0	0
SR-DO02	174,253	248,883	288,530	334,493	387,778	449,551	521,164	604,185	700,432	812,011	941,364	1,091,324	1,265,172
SR-DO03	37,636	47,045	47,045	47,045	47,045	47,045	47,045	47,045	47,045	47,045	47,045	47,045	47,045
SR-DO04	44551	44551	44551	44551	44551	44551	44551	44551	44551	44551	44551	44551	44551

TABLE I-2 PROJECT BASELINE (PBS) ROLLUP BY PROGRAM

Project Number	1997-2006 Total	2007-Comp Total	Grand Total	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
SR-DO05	91,768	480,584	572,352	10,316	13,970	7,670	7,877	8,090	8,308	8,533	8,763	8,999	9,242
SR-DO06	606,410	4,122,000	4,728,410	64,400	62,500	56,400	56,600	57,800	59,100	60,400	61,700	63,110	64,400
SR-DO07	167,440	1,105,152	1,272,592	28,452	12,910	14,330	14,717	15,114	15,522	15,941	16,372	16,814	17,268
DOE Total	1,548,009	14,708,215	16,256,224	180,609	164,180	148,900	151,641	155,452	159,435	141,521	145,062	148,775	152,434
Baseline	13,513,806	48,313,968	61,827,774	1,245,033	1,299,816	1,386,400	1,329,869	1,316,112	1,371,262	1,361,546	1,384,473	1,396,918	1,422,377
Management Challenge													
SR-MC01	-968,055	0	-968,055	0	-139	-3,058	-31,431	-65,505	-99,715	-135,496	-172,414	-210,467	-249,830
SR-HQ01	-2,323,000	0	-2,323,000	*0	-125,000	-159,000	-151,000	-233,000	-268,000	-301,000	-333,000	-363,000	-390,000
MGT Total	-3,291,055	0	-3,291,055	0	-125,139	-162,058	-182,431	-298,505	-367,715	-436,496	-505,414	-573,467	-639,830
Site Totals	10,222,751	48,313,968	58,536,719	1,245,033	1,174,677	1,224,342	1,147,438	1,017,607	1,003,547	925,050	879,059	823,451	782,547
HQ BA	12,015,760	0	12,015,760	1,193,000	1,181,000	1,205,220	1,205,220	1,205,220	1,205,220	1,205,220	1,205,220	1,205,220	1,205,220

Modified 5/21/97

Footnote: * The initial HQ efficiency targets included $61,000 for FY97. However, given that more than one half of the year has elapsed, even though efficiency actions will be taken, actual savings cannot materialize until FY98 and beyond.

TABLE I-2 PROJECT BASELINE (PBS) ROLLUP BY PROGRAM

Project Number	2007-2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
SR-DO05	36,968	36,968	36,968	36,968	36,968	36,968	36,968	36,968	36,968	36,968	36,968	36,968	36,968
SR-DO06	258,000	322,000	322,000	322,000	322,000	322,000	322,000	322,000	322,000	322,000	322,000	322,000	322,000
SR-DO07	69,072	86,340	86,340	86,340	86,340	86,340	86,340	86,340	86,340	86,340	86,340	86,340	86,340
DOE Total	620,480	785,787	825,434	871,397	924,682	986,455	1,058,068	1,141,089	1,237,336	1,348,915	1,478,268	1,628,228	1,802,076
Baseline													
Management C													
SR-MC01		0	0	0	0	0							
SR-HQ01													
MGT Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Site Totals	5,827,233	6,684,278	5,405,636	2,294,666	2,082,801	2,236,355	2,395,934	2,600,893	2,914,599	3,276,449	3,693,379	4,173,903	4,727,841
HQ BA													
Modified 5/21/													

Footnote: * The

TABLE 1-3 SUMMARY of EFFICIENCY IMPROVEMENTS in the SAVANNAH RIVER SITE ACCELERATING CLEANUP: FOCUS ON 2006, DISCUSSION DRAFT

PRODUCTIVITY IMPROVEMENTS	1997 $ X 1000	1998 $ X 1000	1999 $ X 1000	2000 $ X 1000	2001 $ X 1000	2002 $ X 1000	2003 $ X 1000	2004 $ X 1000	2005 $ X 1000	2006 $ X 1000	TOTAL $ X 1000
General & Mission Support Savings, July	20,000	20,540	21,095	21,664	22,249	22,850	23,467	24,100	24,751	25,419	226,135
General & Mission Support Savings, Feb.		75,000	77,025	79,105	81,241	83,434	85,687	88,000	90,376	92,816	752,684
Improvements in Project Estimates	**20,000**	**95,540**	**98,120**	**100,769**	**103,490**	**106,284**	**109,153**	**112,101**	**115,127**	**118,236**	**978,819**
Management Challenge (SR-MC01)		**139**	**3,058**	**31,431**	**65,505**	**99,715**	**135,496**	**172,414**	**210,467**	**249,830**	**968,055**
TOTAL SR EFFICIENCY IMPROVEMENTS	**20,000**	**95,679**	**101,178**	**132,200**	**168,995**	**205,999**	**244,649**	**284,515**	**325,594**	**368,066**	**1,946,874**
DOE-HQ Efficiency Target (SR-HQ01)	61,000	125,000	159,000	151,000	233,000	268,000	301,000	333,000	363,000	390,000	**2,384,000**
GRAND TOTAL EFFICIENCY IMPROVEMENT	**81,000**	**220,679**	**260,178**	**283,200**	**401,995**	**473,999**	**545,649**	**617,515**	**688,594**	**758,066**	**4,330,874**

Section II

Two Budget Comparison

SECTION II

HIGH AND LOW BUDGET COMPARISON

The SRS compliance-based Discussion Draft assumes a funding target which is consistent with a total Department budget for Environmental Management of $6 billion (High Planning Case). While it is recognized that this funding level is $.5 billion higher than the current planning targets (Low Planning Case) provided to the Department, considerable improvement in the acceleration of the clean-up mission and significant reductions in the outyear mortgages can be achieved with this additional investment of $.5 billion each year over the life of the planning period. The SRS Accelerating Cleanup: Focus on 2006, Discussion Draft has incorporated these accelerations and mortgage reduction opportunities as summarized below (additional details for applicable programs can be found in Section VII). The ability to achieve these accelerations is dependent on successfully meeting the efficiency challenges identified in this Discussion Draft.

CLEAN-UP MISSION ACCELERATION - 2006 END STATE

The notable opportunities for the High Planning Case included in the SRS Discussion Draft through 2006, which take advantage of the additional investment include:

- Stabilization of SRS at-risk nuclear materials by fiscal year 2004, representing an improvement of 16 years over the Low Planning Case.
- Completion of remediation of all high risk environmental waste sites, averting a delay of 14 years.
- Full operation of High Level Waste systems, inclusive of the DWPF vitrification facility throughout the ten year planning period as opposed to a reduced production rates, results in a schedule improvement of three years.
- Operation of the privatized Spent Nuclear Fuel Transfer and Storage service by 2002, averts a delay till 2011. Such a delay would require extended storage in existing basins and additional basin upgrades, and significantly prolong security and surveillance and maintenance activities.
- Support the decontamination and deactivation work in excess facilities such as reactors, enabling site reductions in surveillance and maintenance.

MORTGAGE IMPROVEMENTS OVER THE LIFE CYCLE

The additional investment in the High Planning Case in the first ten years of the SRS Discussion Draft provides specific opportunities for reduction in life cycle schedules and associated cost over the Low Planning Case:

- The overall schedule for nuclear material stabilization is improved by 16 years (2004 versus 2020) with an associated cost savings of $2.4 billion. The High Planning Case permits accomplishment of the nuclear materials stabilization program in accordance with DNFSB 94-1 agreements with minor exception related to Neptunium stabilization (deferred from fiscal year 2002 to 2004). In addition,

funding for canyon facilities deactivation at the conclusion of the stabilization campaigns can avert the expenditure of more than $200 million per year in surveillance and maintenance cost.

- The Environmental Restoration work is completed 13 years sooner than supported by the Low Planning Case with an associated life-cycle cost savings of $260 million.
- The high level waste tanks are emptied, the waste vitrified, and tanks are closed three years earlier than for the Low Planning Case, with a cost savings of $1 billion.
- Spent nuclear fuels are stabilized, packaged, and stored with a schedule reduction of 11 years and an associated cost savings of $1.5 billion.

CONCLUSION

The High Planning Case funding in and of itself will not meet the currently estimated needs. Therefore, SRS is fully committed to aggressively pursue cost cutting measures to enhance the accomplishment of critical work during a period of declining funds availability. If successful, SRS will be able to meet the compliance commitments and expectations and, potentially be able to accelerate cleanup activities. SRS will use the prioritization process, discussed in Section III, to ensure that the available funding is applied to the most critical work scopes.

Section III

Priority Process

SECTION III

EM SITE PRIORITIZATION PROCESS/LIST

BACKGROUND AND PURPOSE OF PRIORITIZATION PROCESS

In November 1994, as part of the fiscal year (FY) 1997 planning and budget formulation process, SRS developed and implemented an EM prioritization process for ranking direct activities based on risk to ensure that the higher risk activities would receive FY97 funding. Based on this program, an EM-Integrated Priority List (EM-IPL) was developed. The prioritization methodology and the EM-IPL list were reviewed with and distributed to the regulators, members of the Citizen Advisory Board (CAB), and the public.

This prioritization process provides a disciplined, systematic approach to addressing program scope priorities. The final priority list reflects the integration of management and site and stakeholder input.

The same prioritization process was used in the development of the FY98 Out Year Budget (OYB) in resolving EM program priorities, changing workforce restructure staffing priorities, and responding to FY98-99 funding changes. Changes to the target funding levels or changes in program guidance from the Department of Energy Savannah River Operations Office (DOE-SR) were reviewed against the Integrated Priority List to determine which activities would be impacted (i.e., whether they would be funded or would have their scope reduced). The EM-IPL has become the primary tool between DOE-SR and Westinghouse Savannah River Company (WSRC) to communicate scope and funding issues and provide a tool for management decision making.

The development of the EM-IPL is based on a model that objectively and consistently evaluates all SRS EM program activities against the following criteria (not in priority order):

- Public health and safety
- Worker health and safety
- Environmental protection
- Regulatory compliance
- Current mission impact
- Safeguards and security
- Social/Cultural/Economic Impacts
- Cost effectiveness/Mortgage reduction
- Mission viability

The ranking of these criteria and associated weighting factors were developed through extensive stakeholder participation.

Also, as in the FY98 OYB formulation, the Qualitative Risk Evaluation process was used to evaluate all of the EM activities. Risk Data Sheets were completed with scope and budget and risk information that was applicable for each activity. Risk information, as defined in this process, included the nine criteria listed above. These Risk Data Sheets provided a framework for structuring risk information and focusing

management expertise on the evaluation of risks related to programmatic issues and activities. The risk evaluation was performed by a group of individuals with extensive experience with the site's operational history and the potential risk of each activity.

The EM Program was divided into over 250 individual EM tasks and each task was ranked using the criteria, as ranked by stakeholders and the CAB. The initial ranking served as a starting point for senior management. The Priority List was then reviewed, and revised by SRS using a comprehensive planning and approval process. The criteria employed by SRS were reflective of SRS stakeholders, key EM program drivers, and DOE-HQ EM's goals of addressing high and medium risk, reducing mortgage costs, and addressing major compliance issues.

STAKEHOLDER INVOLVEMENT

Public involvement is an integral component of the SRS program operations and planning activities. Based on the adoption of a public participation policy in 1992 by the DOE Headquarters, SRS is committed to providing the regulators, general public, and other stakeholders with meaningful opportunities to be involved in its decision-making processes. In the past few years, several significant activities have occurred at SRS that reflect its commitment to providing opportunities for public involvement, such as working with stakeholders to determine their ranking of the criteria. During the development of the FY97 budget, the site worked extensively with stakeholders including the CAB, the South Carolina Department of Health and Environmental Control (SCDHEC) and the Environmental Protection Agency (EPA).

The members of the CAB and the public modified the criteria to better reflect their values and concerns as well as ranking the criteria. Also members of the CAB and the public were responsible for adjusting some of the weighted scores for each criteria to better reflect the stakeholder risks and values at SRS.

SRS PRIORITY LIST
(EM ACTIVITIES ONLY)

Project Numbers	Congress. B & R	HQ EM Office	Project Title
	OPERATIONAL PROJECTS		
SR-NM01	EW70	60	F - Area Stabilization Project (S & M)
SR-NM02	EW70	60	H - Area Stabilization Project (S & M)
SR-HL02	EW31	30	H Tank Farm (S & M)
SR-HL01	EW31	30	F Tank Farm (S & M)
SR-HL04	EW31	30	ITP/ESP Operations
SR-HL09	EW31	30	Tank Farm Safety Projects
SR-HL07	EW31	30	ETF Operations
SR-HL05	EW31	30	Vitrification Project (Operations)
SR-SF01	EW70	60	K-Reactor Spent Nuclear Fuel Project (S&M and Operations)
SR-SF02	EW70	60	L-Reactor Spent Nuclear Fuel Project (S&M and Operations)
SR-SF03	EW70	60	RBOF Spent Nuclear Fuel Project (S&M and Operations)
SR-SW01	EW31	30	Consolidated Incinerator Facility (S & M)
SR-FA16	EW70	60	F Area Monitoring Project (S & M)
SR-IN12	EW70	60	Operating Project (CE and GPP S & M)
SR-NM04	EW70	60	Canyon Exhaust Line Item
SR-HL08	EW31	30	Saltstone Operatins
SR-HL03	EW31	30	Waste Removal Project
SR-ER05	EW20	40	Steel Creek Project
SR-ER02	EW20	40	Four Mile Branch Project
SR-ER01	EW20	40	Flood Plain Swamp Project
SR-ER07	EW20	40	Program Mangt (ER)
SR-ER06	EW20	40	Upper Three Runs Project
SR-ER04	EW20	40	Pen Branch Project
SR-ER03	EW20	40	Lower Three Runs Project
SR-SW02	EW31	30	Transuranic Waste (Operations)
SR-SW03	EW31	30	Mixed Low Level Waste Project (Operations)
SR-SW05	EW31	30	Hazardous Waste Project (Operations)
SR-SW04	EW31	30	Low Level Waste Project (Operations)
SR-SW06	EW31	30	Sanitary Waste (Operations)
SR-SW07	EW70	60	Pollution Prevention (Waste Minimization)
SR-FA20	EW70	60	Reactor Monitoring Project (Waste Minimization, C Area)
SR-IN12	EW70	60	Operating Project (DOE Support, Work for Others)
SR-IN03	EW70	60	Plant Maintenance Line Item
SR-IN04	EW70	60	Domestic Water Line Item
SR-IN07	EW70	60	Site Road Infrastructure
SR-IN01	EW70	60	Plantwide Fire Protection Line Item
SR-IN06	EW70	60	Radio Trunking System Line Item
SR-SF04	EW70	60	Heavy Water Process (D Area Consol. and MPF/TPF Ops)
SR-SF05	EW70	60	Heavy Water Operations (K Reactor & D Area)

SRS PRIORITY LIST
(EM ACTIVITIES ONLY)

TYP Numbers	Congress. B & R	HQ EM Office	Project Title
SR-FA20	EW70	60	Reactor Monitoring Projects (P, C, R Reactor S&M)
SR-FA18	EW31	30	M Area Monitoring Project (S & M)
SR-SF02	EW70	60	L-Reactor Spent Nuclear Fuel Project (Fuel Receipts)
SR-SF03	EW70	60	RBOF Spent Nuclear Fuel Project (Fuel Receipts)
SR-IN05	EW70	60	Building Chillers Line Item
SR-IN10	EW70	60	Environmental Monitoring Lab Line Item
SR-IN09	EW70	60	Health Physics Support line Item
SR-IN12	EW70	60	Operating Project (CE &GPP Regulatory Compliance)
SR-NM01	EW70	60	F - Area Stabilization Project (DNFSB Activities - Partial Scope)
SR-NM02	EW70	60	H - Area Stabilization Project (DNFSB Activities - Partial Scope)
SR-NM03	EW70	60	Actinide Packaing Line Item
SR-SF01	EW70	60	K-Reactor Spent Nuclear Fuel Project (Fuel Shipping)
SR-SF02	EW70	60	L-Reactor Spent Nuclear Fuel Project (Fuel Shipping)
SR-SF03	EW70	60	RBOF Spent Nuclear Fuel Project (Fuel Shipping)
SR-SF06	EW70	60	Alternate Technology Project
SR-NM01	EW70	60	F - Area Stabilization Project (DNFSB Activities - Full Scope)
SR-NM02	EW70	60	H - Area Stabilization Project (DNFSB Activities - Full Scope)
SR-SW01	EW31	30	Consolidated Incinerator Facility (Operations)
SR-SF06	EW70	60	Alternate Technology Project
SR-IN12	EW70	60	Operating Project
	BASE MANAGEMENT ACTIVITIES		
SR-D002-WSI	EW70	60	WSI Landlord Project
SR-D005-EPS	EW20	40	DOE External Program Support (ER Commitments)
SR-D006-PD	EW10	20	DOE Program Direction
SR-D007-PS	EW70	60	DOE Program Support
SR-D001-CAP	EW70	60	DOE Project Line Item
SR-D004-ECO	EW70	60	Ecology Lab Project
SR-D003-FOR	EW70	60	Forest Service Project
SR-D005-EPS	EW20	40	DOE External Program Support (MUSC)
SR-D007-PS	EW70	60	DOE Program Support (MUSC)
SR-TD01	EW40	50	Science & Technology Development
SR-ER09	EX20	40	HWCTR Project

Note 1 Projects in italics have been subdivided to effectively prioritize site work priorities (ie Project Title appears more than once on the Priority List)

Note 2 All Tasks may not be funded in the TYP Case 1 or 2.

Note 3 Priority List includes Science & Technology Development EW40 which is not included in the SRS TYP.

Section IV

Workforce Restructuring

SECTION IV

WORKFORCE RESTRUCTURING

KEY ASSUMPTIONS

With the end of the Cold War, the DOE missions have changed from primarily producing nuclear materials to one of environmental management which includes remediation of waste sites and stabilization, treatment, storage, and disposal of nuclear materials from past operations. With this change in scope and reduced funding from Congress, SRS has reduced its workforce by 10,000 over the past four years. A reduction in force of approximately 500 occurred in mid-May. The possibility of additional reductions exists depending on the final outcome of the FY 1998 budget process. Additional workforce reductions may occur, based on the following assumptions:

- SRS receives flat funding for FY1999-2006.
- Number of people in the workforce is driven by the workscope and available funding, and is not driven by independent staffing targets.
- There is compounded, 2.7% reduction in buying power per fiscal year, representing the effect of inflation during the planning period.
- Major Management and Operating (M&O) Contractor attrition remains at an average 3% through 2006, effectively offseting the loss of buying power due to inflation.

STRATEGY

As part of the workforce restructuring process, SRS will continue to actively seek input from its workforce and representatives from the community, state and local government officials, and labor unions in developing workforce restructure plans. SRS strategy is to provide a positive community impact.

SRS will determine manpower projections and identify the appropriate skill mix requirements to create a manpower forecast. As each fiscal year of the plan approaches Congressional appropriation, the actual manpower and skill mix will be re-evaluated to determine the specific Workforce Restructure execution plans.

Workforce restructuring (if needed) will continue to be accomplished on a self-financing basis meaning Reduction in Force (RIF) would occur during the late spring or early summer of the fiscal year preceding the upcoming budget year.

Workforce restructure analysis, using the above assumptions,shows that planned annual attrition exceeds annual efficiency labor reductions which will allow some hiring to adjust and maintain a balanced skill and experience mix.

DEMOGRAPHICS & SKILL MIX

The average age and years of service for Westinghouse Savannah River Company (WSRC) employees (including Bechtel Savannah River Inc. [BSRI], British Nuclear Fuels [BNFL], and Babcock and Wilcox [B&W]) is 47 and 22.5 years respectively. See graphs A-IV and B-IV for distribution.

Approximately 22% of the site's workforce will be eligible for retirement by 2006, leaving 78% of the current relatively stable workforce available through 2006.

ATTRITION, CRITICAL SKILLS & SUBCONTRACTORS

Historically, attrition has been running approximately 2.8% to 3.0% over a period of five years (without considering workforce restructuring). SRS M&O contractors have maintained critical skills via selective hiring, reduction of force, and a blend of privatization outsourcing and fixed price subcontracting. (See Graph C-IV for current workforce skill mix.) SRS plans to maximize subcontracts for short-term critical skills and maintain its critical core competency skills to support longer term mission and mission viability. Construction craft skills will continue to follow the normal ebb and flow of construction activity for all SRS activities.

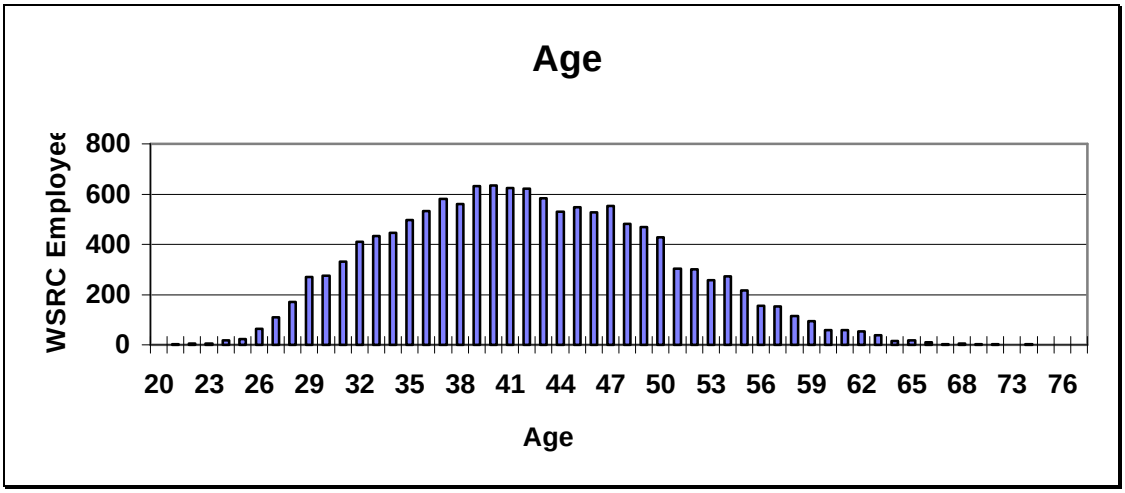
COMMUNITY IMPACT

After the 10,000 reduction in force over the last four years and the current planned FY97 reduction (to accommodate FY98 funding and scope decrease), the major community impacts have already occurred, and continue to be felt, e.g. , soft real estate market. The Discussion Draft projects a gradual decrease in WSRC staffing from 12,200 (at the end of calendar year 1997) to about 10,000 at the end of the planning period. The flat funding profile along with normal staffing attrition and critical skill hiring will hopefully minimize any further negative community impact due to previous major staffing reductions (See Graph D-IV.) Flat funding planning (without the previous major voluntary and involuntary workforce reduction) significantly improves the ability to plan and manage workforce population and skills.

CHALLENGES

In order to accomplish other Discussion Draft objectives such as reducing support costs, (costs for support activities include fire protection, human resource support, etc.), a significant challenge exists to achieve a proper balance of workforce skills without unnecessary reductions in force. Support-type employees may be retrained so that they could work in a direct mission area. If the retraining is not completely successful, there may be reductions in force in support areas, with offsetting new hires for specific mission activities. It is not possible at this time to predict the precise fiscal years, if any, in which such restructuring actions would be necessary. These actions would also be highly dependent upon the degree of success in achieving the efficiency challenges. To the extent that savings achievements permit SRS to undertake work not currently included in the Discussion Draft work scope, the required skill mix could change radically. Since the work to be added would depend on the work accomplished and the priorities at that point, the required skills cannot be accurately defined in advance but could well require significant restructuring of the work force.

A-IV


Age
WSRC Employee
800
600
400
200
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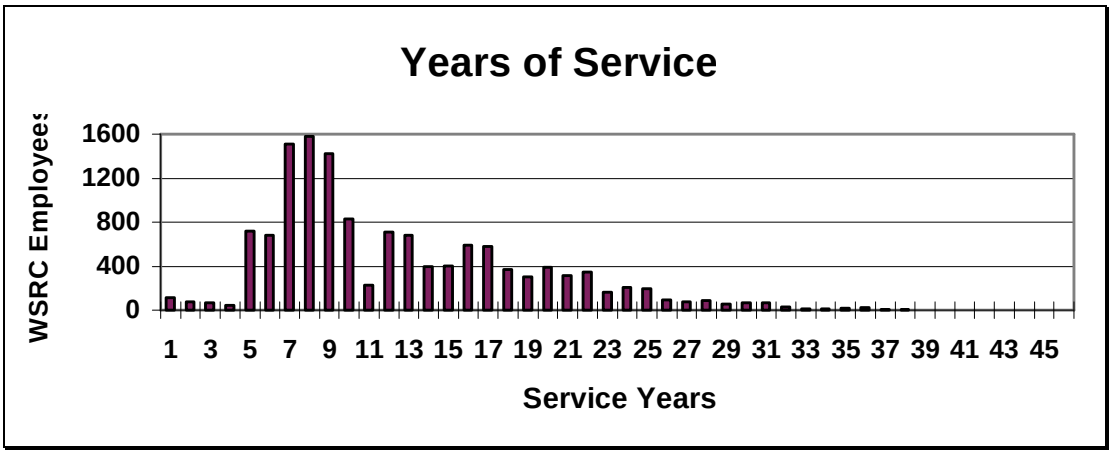
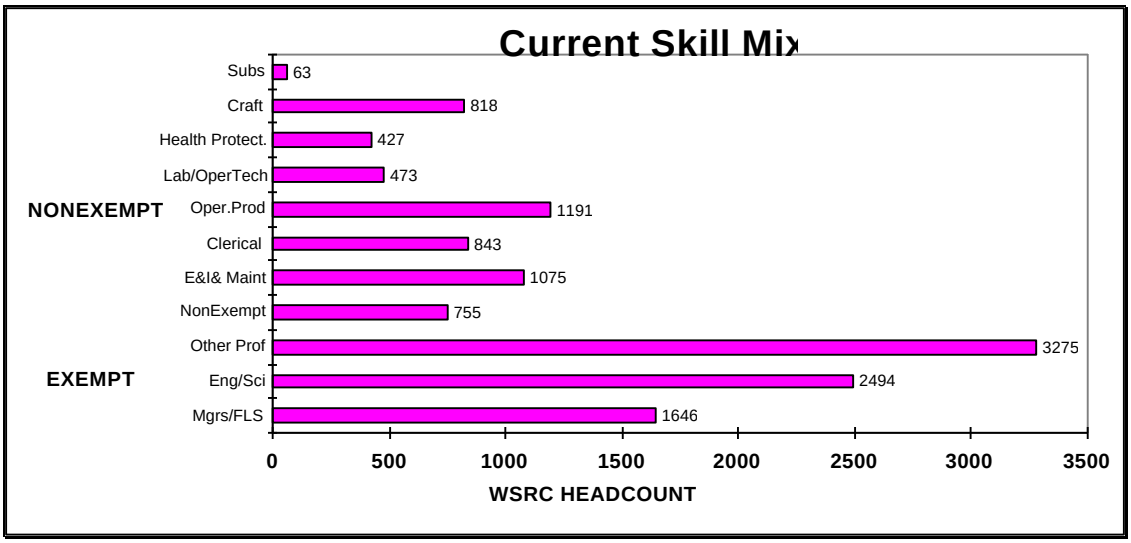
20 23 26 29 32 35 38 41 44 47 50 53 56 59 62 65 68 73 76
Age

B-IV


Years of Service
WSRC Employees
1600
1200
800
400
0
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39 41 43 45
Service Years

C-IV


Current Skill Mix
NONEXEMPT
EXEMPT
Subs 63
Craft 818
Health Protect. 427
Lab/OperTech 473
Oper.Prod 1191
Clerical 843
E&I& Maint 1075
NonExempt 755
Other Prof 3275
Eng/Sci 2494
Mgrs/FLS 1646
0 500 1000 1500 2000 2500 3000 3500
WSRC HEADCOUNT

Section V

Regulatory Compliance

SECTION V

REGULATORY AND LEGAL COMPLIANCE

The Department of Energy Savannah River Operations Office (DOE-SR) is committed to complying with all pertinent local, state and federal regulations, requirements and agreements. These include, but are not limited to, environmental protection, worker health and safety, nuclear safety, labor rights and transportation statutes and requirements.

While full compliance is a mandate at SRS, DOE-SR recognizes there are opportunities for flexibility within the regulatory framework that can be used to streamline and/or enhance site operations. By exploring these opportunities with the public and the state and federal agencies that oversee its compliance, SRS may be able to expedite the cleanup program in a more cost-effective manner. However, it is vital that these state and federal agencies, as well as the public, concur with any improvements in the way in which site operations are conducted. The site's exemplary history of compliance with regulatory requirements will not be compromised. With this assurance of full compliance, the site can confidently state that operations at SRS have been and will continue to be protective of human health and safety and the environment.

COMPLIANCE WITH REGULATIONS, AGREEMENTS, AND OTHER REQUIREMENTS

Regulatory compliance is a primary consideration in determining which operations are completed at the SRS. DOE-SR, its contractors, and all other organizations at SRS, will comply with all regulatory requirements. Those activities with a regulatory driver will be funded and completed on schedule, as agreed to with its regulators. While DOE-SR may elect to modify its approach to maintaining regulatory compliance, compliance with all requirements and milestones, as identified in Attachment C, Section A.3, will be maintained. Maintaining compliance will not exclude SRS from working with the regulatory agencies and the public to explore alternative or more flexible ways in which the regulatory requirements may be met. An example of a current initiative the site is exploring includes integrating the requirements of the National Environmental Policy Act (NEPA) with those of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) to guarantee complete regulatory coverage for various SRS activities. An integration of these statutory requirements would result in increased cost efficiencies and expedited cleanup. Alternative compliance methods and details regarding final acceptance of these methods will be included in the projects as they are developed

NEPA COMPLIANCE

SRS maintains a multi-organization NEPA working group which identifies, supports, tracks, and ensures regulatory compliance with all site and programmatic NEPA actions affecting or potentially affecting the site.

On the site level, an intricate system is used to identify whether a proposed site action requires NEPA action. This system also determines the type of NEPA action needed—a categorical exclusion, an environmental assessment or an environmental impact statement (EIS).

Within the last three years, SRS has completed three EISs while DOE-HQ completed seven separate programmatic EISs. As a result of the DOE-HQ decisions, four SRS-specific EISs are in progress and three to five additional site EISs may be necessary. Four programmatic EISs are also underway, two of which will

determine the environmental impacts of storage of transuranic material and high-level waste, and one programmatic EIS for the storage and treatment locations for waste and storage across the DOE complex and another one for stabilization location for plutonium residue and scrub alloy.

Section VI

Issue Resolution

SECTION VI

ISSUES RESOLUTION

This section contains the plans for addressing stakeholder and operational issues at the Savannah River Site. These plans are:

- Accelerating Cleanup: Focus 2006, Discussion Draft Public Participation Plan which includes a schedule for public participation activities and a summary of responses to questions and comments received to date
- Action Plan 20.21 - HEU Blend Down Mission at SRS
- Action Plan 20.26 - Management and Disposition of Aluminum Clad Spent Fuel
- Action Plan 20.14 - Landlord Responsibility

In addition to the three Action Plans which are included in this Section, SRS will support the development of DOE Headquarters Action Plans which have a complexwide application. In particular, these include areas of opportunity:

- Receipt/Storage/Stabilization of Rocky Flats Scrub Alloy
- Consolidated Storage of Surplus Plutonium
- Plutonium MOX Program
- Plutonium Immobilization

SECTION VI

SAVANNAH RIVER OPERATIONS
PUBLIC PARTICIPATION PLAN FOR ACCELERATING CLEANUP: FOCUS ON 2006, DISCUSSION DRAFT

NOTE: In May 1997 the name of the national and site plans changed to Accelerating Cleanup: Focus on 2006, Discussion Draft.

Background

The Department of Energy Savannah River Operations Office (DOE-SR) began its public participation activities on the Draft Savannah River Site (SRS) Ten Year Plan in June 1996 prior to the draft plan's issuance. SRS distributed over 600 copies of the Draft July 1996 Ten Year Plan to interested individuals and groups and engaged in a number of meetings and communications. To date, DOE-SR has hosted or participated in more than 25 meetings or activities with stakeholders to discuss the plan. A brief summary of these activities is included in Attachment A to this Public Participation Plan.

The interest level among stakeholders on the Accelerating Cleanup: Focus 2006, Discussion Draft initiative has been high and is generally supported by most. DOE-SR is committed to making the planning process one in which the stakeholders have been afforded the opportunity to influence decisions that are being made or will be made on both a local and a national level. As such, the DOE-SR has continued public participation activities throughout the fall of 1996 and early 1997, and as detailed below, will support additional activities in 1997.

As issues and questions have been raised throughout the public participation process, they have been captured by DOE-SR. Questions and comments about the plan and the planning process received to date are shown in the Responsiveness Summary in Attachment B to this section.

In May 1997 the name of the national and sites plans changed to Accelerating Cleanup: Focus on 2006, Discussion Draft. The Discussion Draft also became part of the DOE fiscal year (FY) 1999 budget process and stakeholder involvement became focused on incorporating stakeholder values, principles, concerns, and issues during the formation of the FY 1999 DOE budget to the Office of Management and Budget (OMB) and Congress.

Objective

DOE-SR believes stakeholders have the right to become engaged in the development of the Accelerating Cleanup: Focus 2006, Discussion Draft. Many of the decisions to be made about the DOE budget and the future of DOE and the SRS are controversial and complex. As such, DOE-SR believes it is necessary to provide cost-effective opportunities so that stakeholders can contribute their input as these difficult decisions are made. SRS maintains stakeholders must be brought into the decision-making process early if they are to make a real difference and communications must be open and honest, particularly on the more complex decisions that must be made. Providing stakeholders with feedback and follow-up opportunities describing how their input was used in the decision-making process is an important aspect of the public participation process that cannot be overlooked.

The public involvement process must be on-going for the Accelerating Cleanup: Focus on 2006 initiative to be successful; additionally, the SRS process must be coordinated closely with that of DOE-Headquarters and other DOE operations offices that may influence SRS's plan. DOE-SR believes that public participation goes beyond the issuance of the SRS Accelerating Cleanup: Focus on 2006, Discussion Draft and must continue by offering cost-effective communication and involvement activities until the national initiative is fulfilled.

Federal Budget Development

Since 1994 SRS has increasingly been discussing its budget with stakeholders. For the last two years the SRS CAB has provided a ranking of stakeholder criteria to be used in prioritizing site activities while developing the site budget. The Risk Management and Future Use Subcommittee of the SRS CAB has made the budget and the budget process one of the topics they will continue to follow. SRS plans to continue to involve its stakeholders in the budget process.

In June, July, and August 1997 SRS will involve its stakeholders in the review of the site's FY 1999 budget and will work with DOE Headquarters (DOE-HQ) to have local stakeholder input into the national Environmental Management (EM) budget process. A national video conference will be held in July to discuss the DOE EM budget. SRS stakeholders will be included in discussions. (Additional details are shown in the table attached; specific details will be provided at a later date.) In August the DOE EM budget will be under review by the Secretary of Energy Frederico Peña before the budget goes to the Office of Management and Budget (OMB) in September 1997. This budget will be included in the Presidential budget which will be submitted to Congress in February 1998. Congress will review the FY 1999 budget in various Congressional Committees before the national budget is passed, which will probably be in September 1998.

In December 1997 the SRS will receive preliminary programmatic guidance for budget development for the FY 2000 budget. During 1998, the SRS will work with stakeholders, including the SRS CAB through the Risk Management and Future Use Subcommittee, to prioritize site activities for the FY 2000. The site's priority list will be included in DOE-HQ budget. Stakeholders will continue to be involved in the national process until the final budget is passedby Congress in September 1999.

Details

As noted above, SRS has continued the stakeholder involvement process that began in June 1996 with a variety of public meetings and briefings to groups in South Carolina and Georgia, including the SRS Citizens Advisory Board. Several presentations and discussions have occurred with organized groups that support environmental justice initiatives and efforts.

Because the Discussion Draft impacts such a large population, SRS will use a variety of communication tools to reach its stakeholders and solicit their input. These will include: meetings with the general public, the SRS Citizens Advisory Board, the state and federal regulatory agencies, other government officials and legislators, and other interested groups and individuals in various locations in Georgia and South Carolina; videotape distribution of meetings and/or updates; videotape broadcast on government channels; downlinking of video conferences when available; electronic communications; news releases and advertising; and mailings. Announcements about the Accelerating Cleanup: Focus on 2006, Discussion Draft and meeting notes, as well as the actual initial draft site plan, will be made available on the SRS Home Page for electronic media users. Short videotapes about the Discussion Draft and/or the Discussion Draft meetings may be made available to stakeholders who are unable to participate in meetings, if interest warrants. Additionally, the *SRS Environmental Bulletin* that is mailed to more than 3500 individuals on a monthly basis will contain information about Discussion Draft activities. The *SRS News*, an internal

communication newspaper, will also include information on the Accelerated Cleanup Plan process, as well. All communications on these activities will be sent, at a minimum, to the more than 600 individuals on the SRS Accelerating Cleanup: Focus on 2006 mailing list. This mailing list includes all who have expressed an interest in or raised issues or concerns with the SRS Accelerating Cleanup: Focus on 2006. Comments and questions received to date are in Attachment B of this Public Participation Plan.

All meetings will be interactive with input from the audience encouraged. SRS representatives will address comments respectfully and honestly. Comments and issues offered verbally will be recorded for consideration and included in the compiled list of stakeholder concerns and issues. All meetings will be advertised in the areas in which the meetings are to be held using major media outlets, as well as minority avenues. Additionally, notification post cards will be mailed announcing these meetings and the availability of the site and national drafts of Accelerating Cleanup: Focus on 2006. Meeting announcements will be placed on the SRS Home Page. Sign in sheets at the meetings will ask for e-mail addresses so that electronic media can be used whenever possible. Recognizing that involvement activities may change, SRS has completed or is planning activities shown on the attached table.

When possible, meetings will be combined with other on-going efforts that are underway to promote cost-effectiveness. Additionally, if outside organizations or groups request information on Accelerating Cleanup: Focus on 2006 efforts, SRS will provide the opportunity to meet with these groups or will participate in activities any group has planned. At most of the events included on the attached table, SRS will ask stakeholders to provide feedback on the meeting by filling out questionnaires about the meeting design and the presenters. Stakeholders will have an opportunity to submit concerns about the Accelerating Cleanup: Focus on 2006 initiative on these questionnaires. These comments will be included in the list of stakeholder issues and comments being compiled.

SRS will include in its stakeholder involvement efforts, as pertinent, information from DOE-HQ's initiatives with the Environmental Management Advisory Board (EMAB) or National Dialogue.

SRS Public Participation Lead:	Virginia Kayr, (803) 725-5752
SRS Office of External Affairs Lead:	Bill Taylor, (803) 725-5426
SRS Discussion Draft Point of Contact:	John Pescosolido, (803) 725-5590 Jim Buice, (803) 725-2263
WSRC Public Participation Lead:	Mary Flora, (803) 952-6852
WSRC Discussion Draft Points of Contact:	Matt Zimmerman, (803) 725-7674 Clay Jones, (803) 725-4409

SECTION VI

Attachment A

DATE	LOCATION	PURPOSE	STATUS
June 1996	Savannah River Site	National Stakeholder Video Conference. Introduced Ten Year Plan concept to stakeholders	Completed
July 10, 1996	Allendale, South Carolina	Public meeting led by ErnieChaput. Overall perception of attendees was supportive, but many were somewhat skeptical that this was just another plan. Attendance: approximately 20	Completed
July 22 & 23, 1996	Aiken, South Carolina	CAB Meeting and Risk Management & Future Use (RM&FU) Subcommittee meeting. Led by Clay Jones and ErnieChaput. Perception was positive, supportive and interested in following process through culmination. Attendance: approximately 35.	Completed
August 15, 1996	Savannah River Site	Briefing to South Carolina Department of Health and Environmental Control (SCDHEC) and Environmental Protection Agency (EPA) Region IV officials at the Savannah River Site. Led by Clay Jones. Perception was positive, except for importing waste into SC. Attendance: approximately 8	Completed
August 17, 1996	Hilton Head Island, South Carolina	RM&FU Subcommittee meeting led by Clay Jones. Public was positive and supportive. Attendance: approximately 20.	Completed
August 27, 1996	Aiken, South Carolina	Public meeting led by AlAlm. Perception was very supportive and positive. Attendance: more than 150.	Completed
September 19, 1996	Columbia, South Carolina	Public meeting led by ErnieChaput. perception was supportive. Attendance: approximately 7.	Completed
September 24 & 25, 1996	Beaufort, South Carolina	CAB Meeting and RM&FU Subcommittee led by Clay Jones and Vernon Zinnerman. Perception was supportive. Attendance: approximately 40.	Completed
November 18 & 19, 1996	Barnwell, South Carolina	CAB Meeting and RM&FU meeting led by Clay Jones and Vernon Zinnerman. Positive perception. Attendance: approximately 25.	Completed
November 20, 1996	Savannah, Georgia	Public meeting with Citizens for Environmental Justice led by Clay Jones. Positive perception. Attendance: approximately 30.	Completed
November 22, 1996		Briefing to SCDHEC led by Clay Jones. No feedback.	Completed
December 2, 1996	Augusta, Georgia	Briefing for SRS CAB and RM&FU Subcommittee members and general public on the status of identified issues in which SR may be involved.	Completed

December 5, 1996	Savannah, Georgia	Briefed Savannah Manufacturing Council on potential future missions being considered for SR.	Completed
January 27, 1997	Hilton Head Island, South Carolina	Briefed representatives from SCDHEC and EPA on status of Ten Year Plan prior to the CAB meeting.	Completed
January 27 & 28, 1997	Hilton Head Island, South Carolina	Briefed SRS CAB members and general public on status of the Ten Year Plan at regular bi-monthly meeting (including how concerns/issues are being addressed).	Completed
January 31 & February 1, 1997	Savannah, Georgia	SRS representatives discussed the Ten Year Plan and budget priorities at a training seminar hosted by the Citizens for Environmental Justice. Attendance: approximately 50	Completed
February 6, 1997	Aiken, South Carolina	Briefed interested stakeholders on the FY 98 Budget rollout.	Completed
February 18, 1997	Aiken, Augusta Area	Briefed public on February 28, 1997 submittal draft Ten Year Plan. Comments from public were concern about the budget. Attendance: approximately 75	Completed
March 11, 1997	Hephzibah, Georgia	SRS CAB RM&FU Subcommittee meeting discussed Draft Ten Year Plan status. Attendance approximately 8. Comments received were about the schedule for the Draft Ten Year Plan release and the budget.	Completed
March 13, 1997	by phone	Briefed SCDHEC, EPA and legislative officials on status of SR Draft Ten Year Plan.	Completed
March 24 & 25, 1997	Aiken/Augusta Area	Briefed SRS CAB members and general public on status of Draft Ten Year Plan at regular bi-monthly meeting). CAB passed recommendation on ranking of budget criteria	Completed
April 4, 1997	N/A	Post card sent announcing delay in release of national and SRS Draft Ten Year Plan to individuals on 600+ name mailing list; announcement also sent via Environmental Bulletin.	Completed
May 21, 1997	Savannah River Site	National Videoconference on Accelerating Cleanup: Focus on 2006, Discussion Draft. Discussion to include public participation techniques and activities for release of the Discussion Draft. SRS Citizens Advisory Board invited to participate in national videoconference. Site representatives will also discuss the background and scope of the Discussion Draft and future schedule.	Completed

May 27, 1997	Aiken Public Library	Discussed the federal budget process and the FY 1998 budget with new members of the SRS CAB RM & FU Subcommittee. Attendance: 27, including 4 Boy Scouts and 2 Boy Scout Leaders who were attending the meeting for their Citizenship merit badge. Explanation of the budget process was well received, based on information from meeting evaluation forms completed by participants. Three email addresses were obtained so that the internet can be used to send information.	Completed
June	N/A	Release of national and SRS Accelerating Cleanup: Focus on 2006, Discussion Draft. Copies of both documents will be sent to individuals on 600-name mailing list who have shown an interest in the Discussion Drafts. Drafts will also be placed on SRS Home Page. Availability will be announced in Environmental Bulletin.	Proposed
TBD	TBD	National Video conference to discuss national Discussion Drafts. SRS will add a session on the site's Discussion Draft. SRS CAB, public, and regulators will be invited to participate and announcements will be sent to individuals on mailing list, included in Environmental Bulletin, and placed on SRS Home Page. Advertisements will be made in local newspapers. E-mail will be used to contact those stakeholders whose e-mail addresses we have. Sign in sheet will ask for e-mail address so that information can be sent via the internet. Meeting notes sent to all stakeholders and put on the SRS Home Page. Meeting will be video-taped and edited (for length) so that those who were unable to participate can see the video. Copies of the video tape will be made available to stakeholders upon request. Video will also be put on government broadcast channels (free).	Proposed
TBD	N/A	DOE-HQ will announce a public comment period on national and SRS Discussion Drafts of Accelerating Cleanup: Focus on 2006.	Proposed

TBD (Date will be approximately 2 weeks after release of the national and SRS Discussion Drafts.)	North Augusta, SC	Two-day workshop (evening meetings) on national and SRS Accelerating Cleanup: Focus on 2006, Discussion Drafts to be held with SRS CAB RM & FU Subcommittee. Workshop will also include discussion on FY 1999 budget and how this Discussion Draft ties into budget process. SRS CAB, regulators, and public invited to participate. announcements will be sent to individuals on mailing list, included in Environmental Bulletin, and placed on SRS Home Page. Advertisements will be made in local newspapers. E-mail will be used to contact those stakeholders whose e-mail addresses we have. Sign in sheet will ask for e-mail address so that information can be sent via the internet. Meeting notes sent to all stakeholders and put on the SRS Home Page. Meeting will be video-taped and edited (for length) so that those who were unable to participate can see the video. Copies of the video tape will be made available to stakeholders upon request. Video will also be put on government broadcast channels (free).	Proposed
TBD (Within approximately 2 weeks after the 2-day workshop.)	Savannah, Ga.	Site workshop on national and SRS Accelerating Cleanup: Focus on 2006, Discussion Drafts to be held with SRS CAB RM & FU Subcommittee. Meeting will also discuss FY 1999 budget, seeking stakeholder values, issues, and concerns to assist the site and DOE-HQ in prioritizing activities for the DOE submission to OMB and Congress. This meeting will be similar to the 2-day workshop to be held in North Augusta. SRS CAB, regulators, and public invited to participate. Meeting announcements to be posted on SRS Home Page. Sign in sheet will ask for e-mail address so that information can be sent via the internet . Meeting notes sent to all stakeholders and put on the SRS Home Page.	Proposed
TBD	TBD	Al Alm meeting on national Discussion Draft. SRS CAB, regulators, and the public invited to participate. Meeting announcements to be posted on SRS Home Page. Sign in sheet will ask for e-mail address so that information can be sent via the internet.. Meeting notes to be sent to all stakeholders. Meeting will be video-taped and edited (for length) so that those who were unable to participate can see the video. Copies of the video tape will be made available to stakeholders upon request. Video will also be put on government broadcast channels (free)..	Proposed

July 10, 1997, tentative	TBD	National Stakeholder Forum; SRS will coordinate activities with DOE-HQ. Meeting will also discuss FY 1999 budget and SRS stakeholders values, issues and concerns. CAB members, regulators, and general public invited to participate. Meeting announcement will be placed on SRS Home Page. Sign in sheet will ask for e-mail address so that information can be sent via the internet . Copies of the video tape will be made available to stakeholders upon request. Video will also be put on government broadcast channels (free) and we will investigate possibility of downlink to other locations such as Savannah and/or Columbia.	Proposed
July 21 & 22, 1997	Aiken, SC	Brief SRS CAB members and general public on status of Discussion Draft at regular bi-monthly meeting. SRS CAB RM & FU Subcommittee may provide draft recommendation on FY 1999 budget and national and SRS Discussion Drafts for CAB to consider.	Scheduled
late July	N/A	Send postcard to all stakeholders on the mailing list and members of the SRS CAB reminding them of the public comment period and encouraging them to provide comments. Announcement also to be placed on the SRS Home Page.	Proposed
TBD	N/A	Public comment period on national and SRS Discussion Drafts ends	Proposed
September 22 & 23, 1997	Beaufort, South Carolina	Brief SRS CAB members, regulators, and general public on status of Discussion Draft at regular bi-monthly meeting.	Scheduled
September 1997	N/A	Release of draft national and SRS2006 Plan and FY 99 Budget Submittal. Copies of both documents will be sent to individuals on 600-name mailing list who have shown an interest in the Discussion Drafts. Drafts will also be placed on SRS Home Page. Availability will be announced in Environmental Bulletin.	Proposed
TBD	TBD	Other public participation efforts will be developed, as appropriate, as additional information becomes available.	Proposed
February 1998	N/A	Initial 2006 Plan released. Copies of both documents will be sent to individuals on 600-name mailing list who have shown an interest in the Discussion Drafts. Drafts will also be placed on SRS Home Page. Availability will be announced in Environmental Bulletin.	Proposed

ATTACHMENT B
RESPONSIVENESS SUMMARY

Since the first announcement of the Accelerating Cleanup: Focus on 2006 initiative by Department of Energy (DOE), the Savannah River Site (SRS) has received many comments from its stakeholders. This section is a summary of those comments. For the purposes of this section, public comments are in italics and responses to the comments or answers to the question are provided in plain text.
To facilitate finding specific types of comments, these public comments have been placed in the following general areas:

- Accelerating Cleanup: Focus on 2006 (General) Comments
- Funding Comments
- Public Participation and Involvement Comments
- Privatization Comments
- Program Specific Comments
-

Accelerating Cleanup: Focus on 2006 (General) Comments

The Savannah River Site (SRS) must protect the health and safety of workers and residents of surrounding communities, as well as the environment, as long as SRS operates and is bringing in nuclear materials from other locations. DOE must work to allay fears of those who live the downstream communities.

We agree. The DOE has alwaysstrived to protect the health and safety of workers and the public. The SRS is the safest DOE site in the complex and has one of the safest operations in the country with millions of manhours without an injury. As we have learned about the effects of our operations on the environment, we made changes to continually improve our operations. In addition, we are presently remediating, many areas that were affected by our operations with the guidance and approval of our regulators and the public.

Since the early 1990s we have become more open about our operations. We use public meetings, mailings, videos, tours, and other outreach activities, to explain to our stakeholders SRS's operations and the effects we have on the public and the environment. We recognize that operations can be improved and welcome suggestions we may take to improve our approaches.

Environmental issues must not take a back seat at SRS as other sites in the DOE nuclear weapons complex are closed and missions and waste are transferred to SRS.

We agree. Although the site is being considered as an interim storage site for many of DOE's wastes, we will and must store these wastes so that we can protect the public health and safety and the environment. This is also true for any missions that might come to SRS. Before any action is taken, an environmental analysis, usually through an environmental assessment or environmental impact statement, specific for SRS, must be completed. These analyses will examine the effects of the missions and/or storage of wastes on SRS before any action is taken. As with all National Environmental Policy Act (NEPA) analyses, we will solicit comments from the public. If anyone has any comments on any specific mission and/or waste management activity, we hope that you will participate in those public participation opportunities.

Security issues must be considered when looking at future options for spent fuel and plutonium, including privatization.

Security is considered very important as SRS looks at future options for spent fuel and plutonium. Last year the SRS Citizens Advisory Board (CAB) provided the Department of Energy Savannah River Operations Office (DOE-SR) with a ranking of the list of stakeholder priorities when determining the fiscal year (FY)

1998 budget. The first priority according to this group was the public health and safety. However, these citizens considered security almost as important. This has reaffirmed our commitment to security issues. This year the CAB is also looking at priorities for the FY 1999 budget. Again, security seems to be a high priority. SRS will continue to maintain effective security controls for all of our nuclear materials.

What role will the site-specific advisory boards play in the DOE's resolution of national issues? Will DOE facilitate exchanges and communications among the site-specific advisory boards on national issues?

There are several groups on a national level that provide stakeholder input to the EM Program. The DOE's Environmental Management Advisory Board (EMAB) provides guidance on the resolution of national issues. The EMAB is the Environmental Management Program's citizens advisory board. Additionally, the National Governors Association, a group of state officials, provide their perspective on EM issues. This board has created a committee to advise the Assistant Secretary on the Accelerating Cleanup: Focus on 2006, Discussion Draft. In addition, there is a Community Leaders Forum that determines if there is sufficient public involvement for DOE activities. Another effort being spearheaded at a national level is the National Dialogue. The National Dialogue is involved in the Accelerating Cleanup: Focus on 2006, Discussion Draft process as well and is coordinated by the League of Women Voters.

From SRS's perspective, the SRS Citizens Advisory Board (CAB) has been involved in many issues that are national in nature including spent nuclear fuel and nuclear materials. Also, the Risk Management and Future Use Subcommittee has taken the lead in providing public comments to DOE and the regulators on this initiative. The SRS CAB continues to monitor the resolution of national issues.

Since the site-specific the Accelerating Cleanup: Focus on 2006, Discussion Drafts will be merged into a national complex-wide plan, it is important to have the States involved to ensure equity issues are addressed.

We agree that the States must play an active role in resolving national issues. The intersite opportunities identified in the Discussion Draft for SRS to receive certain waste streams will receive full National Environmental Policy Act (NEPA) review before any decisions are reached. Assuring mutuality and equability among the sites is of primary consideration in the proposals in the Discussion Draft. The National Governors Association, in which South Carolina participates, has raised the equity issue also. The DOE is fully committed to ensuring DOE waste is managed in a fair and equitable manner that is cost effective and protects the health and safety of the public and the environment. In addition, DOE-HQ has convened an effort called the National Dialogue which is designated to provide comprehensive background information to facilitate stakeholder understanding and involvement in current and future DOE decision-making processes.

The numbers/information that back up the conclusion that the nation should use SRS to help solve a national problem must be made available.

The numbers and information that are used as part of the decision-making process are published as part of the National Environmental Policy Act process. There have been several programmatic environmental impact statements (PEISs) completed recently dealing with national issues and site-specific environmental impact statements (EISs) will be prepared before any action is taken. Both programmatic and site-specific EISs include numerous opportunities for public participation. We hope you will participate during the public comment sessions.

The Discussion Draft talks about technology development. Will the technology be there when needed? With the budget shortfalls, DOE must use current proven technology to manage legacy materials; otherwise, we are wasting money.

There are various types of technology available now to solve some of DOE's problems. The issue is to know how and when to apply that technology. There is a special technology development committee that assists DOE is deciding which technology may be appropriate for many of DOE's problems.
DOE would like to buy existing technology from the private sector, instead of developing its own technology. Using existing technologies is more cost-effective and is available for use now. DOE plans to use performance-based specifications when asking for bids on technology. By using performance-based specifications, new technology can compete with existing technology. We anticipate that we will be able to use existing technology for the first five years of the Accelerating Cleanup: Focus on 2006 and maybe new technology for the next five years and beyond. Some may say it is cheaper to wait for technology to be developed; however, past experience has shown this is rarely the case. If a newer technology comes along later, we can always evaluate whether that would be more effective to implement.
Two years ago the Environmental Restoration and Technology Programs began working together to solve some of our problems. Now we evaluate new technology for demonstration purposes while simultaneously remediating some areas of the site. For example, we used geosynthetic liners for capping some of our waste units. This deviated from our typical approach, but has been significantly more cost effective. Additionally, models predict the life span of the geotextile to exceed that of the conventional capping method. To test this, SRS has an extensive monitoring program to determine the long term effectiveness of the geotextiles.

Storage and transportation issues must be considered when looking at future options for spent fuel and plutonium.

Before any material can be brought to SRS or transferred to another facility, NEPA documentation must be conducted and verified. In some cases of spent fuel and plutonium transportation and storage, NEPA has already been satisfied with the completion of environmental impact statements or other analyses; in other instances, NEPA actions are in progress or are planned. During the NEPA process there are numerous opportunities for stakeholder involvement. We hope you will participate in this process as well as in the development of the Initial 2006 Plan.

This planning document should be integrated with other DOE planning documents.

With the change in scope and schedule for the Initial 2006 Plan, this document is being used as the basis for the Environmental Management (EM) portion of the DOE FY 1999 budget submittal. As a result this will be used by various other EM planning documents. In addition, other planning documents, such as the Future Use Report, the Federal Facility Agreement, various NEPA documents, and other similar documents, were used in preparing the SRS Discussion Draft.

During the Cold War local citizens made a sacrifice in that they were willing to have nuclear materials built at the Savannah River Site. Although many people were employed at the site, the major reason this sacrifice was made was because of patriotism. Now it is time for this country to make a sacrifice again. With the site's knowledge, expertise, and infrastructure, we must be willing to bring missions to manage and store nuclear materials and radioactive waste at the Savannah River Site.

Thank you for your comments and we will consider these comments as part of our decision-making process.

<u>Funding Comments</u>

What will be DOE's approach if the funding levels are not constant as being assumed? What process will DOE use to determine which projects will continue if funding is cut and which projects will be accelerated if funding is increased?

If funding is not constant or their is insufficient funding for all proposed tasks for the Savannah River Site, a risk-based prioritization process is used by DOE. This process includes working with stakeholders and the Citizens Advisory Board (CAB) to establish the types of concerns and priorities of these groups. For the FY 1997 and FY 1998 budget process, the Risk Management and Future Use Subcommittee of the SRS CAB and local stakeholders were actively involved in setting site priorities. These groups ranked stakeholder criteria which included public health and safety, worker health and safety, safeguards and security, environmental protection, regulatory compliance, current mission impact, current mission viability, cost effectiveness/mortgage reduction, and social/cultural/economic impacts. The weightings of these concerns were used in a computer model to determine the prioritization of site activities for the FY 1997 and FY 1998 budgets. A similar process has been initiated for the FY 1999 budget and this Discussion Draft.

Records of Decisions and Remedial Action starts in the Environmental Restoration Program should be accelerated.

We agree that the process leading to the Record of Decision should be accelerated. The Savannah River Site has been concerned for some time about the time and resources needed before actual remediation begins at any waste unit. In FY 1994 it took about 49 months to go through this process. By using programs such as Associated Site Corrective Action Design and Streamlined Approach For Environmental Remediation, we have reduced this time to 33 months. With cooperation with our regulators and continually finding additional cost efficiencies, we hope to be able to reduce this time to 25 months.

DOE should continue to support the basic premise of this planning process that funds saved at each site will remain at that site to provide for additional accelerations of activities.

Assistant Secretary AlAlm supports the concept of funds saved at each site should remain at that site to provide additional accelerations of activities and said so when he visited the area in July 1996. While it is unknown at this time whether this concept will be implemented, this comment will be considered as we continue to develop the 2206 Plan.

Looking at the funding levels of the other DOE sites, it seems that SRS is penalized for performing its activities within its budget. It seems as if the other DOE sites are getting monies that SRS should be getting.

DOE asks for funding for SRS to protect the health and safety of our workers and the public and protect the public, as well as monies so that we can meet our compliance agreements. Many of our projects, like the Defense Waste Processing Facility, have completed construction and are now operating. Operating budgets, that are normally smaller than construction budgets, may see some decreases in their budgets to reflect this. Other sites are gearing up to build new facilities. For example, Hanford is working on its own vitrification project.

The change in the assumption of constant buying power to constant dollars, (essentially not allowing for inflation), is a major change in the Discussion Draft. This shows a decrease in funding for the site, not a level funding. With this large of a cut in funding, compliance may be a problem.

We agree that this is a major change in assumptions; however, protecting public health and safety and meeting compliance will continue to be our top priority. Our second priority continues to be maintaining compliance with regulations. The Savannah River Site will continue to optimize its operations such that we expect we can realize more cost effectiveness.

Instead of using dollars on the charts, I believe you should use the number of people employed. This community is concerned with the number of jobs at SRS.

Thank you for your comment. This approach is one we did not consider. It is possible we could use this approach for the future.

Public Participation and Involvement Comments

The information should be provided in a way that a general reader can understand it.

We agree that the information should be presented in such a way that the general public should be able to read and understand any SRS document. We will continue to strive for more readability and to improve future documents on DOE issues.

More advance notice of meeting times and locations should be provided; and meeting locations should be easily accessible to all. Activities targeted to bring in stakeholders should extend beyond the Aiken-Augusta area if it is to be meaningful.

We appreciate your comments. For public meetings we try to give at least 2 weeks notice and meet in locations convenient to most. Ten Year Plan and Discussion Draft meetings/briefings have been held in a variety of locations, including those outside the Aiken/Augusta area. For those who are not able to attend the these meetings, we are providing either a video of either the meeting itself or meeting notes. We also put much of our information on the internet. Comments are always welcome--whether by phone, fax, mail, or internet. We also welcome comments on where and when meetings should be held.

DOE provides ample opportunity for public comment; DOE should consider spending less money to have public meetings.

It is the goal of the Public Accountability Program to have more effective public exchanges, including cost effective meetings. In these days of shrinking budgets, we continue to strive to cut costs by as holding meetings in low-cost public buildings and churches. And we try to combine meetings, if at all possible. For example, we have started having Information Exchange meetings in conjunction with the South Carolina Department of Health and Environmental Control and the Environmental Protection Agency. These meetings usually cover various environmental concerns. If you have other suggestions for locations of meetings, please give us a call at 1-800-249-8155.

How will local stakeholders' comments be sent to DOE-HQ?

Early public comments have been collected and provided to DOE-HQ. Additional comments that are collected will be summarized and included as part of the site's submission of the Discussion Draft to DOE-HQ.

The public should have been told about the drastic change in schedule early.

You are correct. Written notification was sent to stakeholders in November 1996, but we acknowledge we should have met to tell our stakeholders about the change in schedule. We will be more sensitive to this in the future.

Because 75 people attended the SRS public meeting in February, DOE should not focus its public involvement activities just on the CAB. There are many stakeholders who are not involved in the CAB who are very interested and want to be involved with the Ten Year Plan.

We appreciate your comments and will continue our efforts to reach all stakeholders, not just CAB members.

This Ten Year Plan process seems to be yet another plan by DOE. What assurances do we have that this plan is meaningful and will be implemented?

The Ten Year Plan is not just another plan. It is a process that is intended to integrate existing management systems to create a more streamlined planning, budgeting, and reporting system. This plan creates a unifying vision to meet the program objectives of cleaning up the weapons complex. It combines many existing components into one cohesive strategic planning document that identifies and outlines the DOE's commitments for meeting the program objectives. The Accelerating Cleanup: Focus on 2006 vision is designed to accelerate cleanup at DOE sites, to complete as much work as possible before 2006 to reach a cleanup level that assures that sites are safe and secure, to meet regulatory commitments, and to factor in the values of stakeholders. In addition, it addresses the ongoing concern of Congress that the cleanup program represents a long term mortgage that extends too far into the next century.

Privatization Comments

Should we involve private industry to address the overall nuclear issue, including the treatment and storage of commercial fuels?

SRS is involving the private industry in the treatment and storage of nuclear materials. An example of this is the recent effort to find a private company to provide transfer and storage services for spent nuclear fuel. On February 10, 1997, the site hosted a vendor forum to kick off the process and over 100 people attended. We expect to issue a draft Request for Proposal leading up to the site using this service as soon as the chosen private industry is ready to accept our spent nuclear fuel for treatment and storage.

How can privatizing the spent fuel storage project save some 25% in capital cost, and how are the resulting costs distributed evenly over a later period? Vendor amortized equipment and facility cost need to be included for valid comparison with new onsite facility project.

The site will be buying a transfer and storage service, not a facility. The fee we pay for this service will probably include the recovery of the vendor's capital cost. Because we are paying for a service, it is difficult to compare the our costs for building and operating a facility and buying the service.
Comment on Privatization of TRU Waste, page V 17, the Background Section says that a process facility could be made available at an estimated cost of $40 million. Page 9A says $50 million for a shell building only. Please explain the differences.

With the change in funding assumptions, the site has taken an alternative approach to privatization of transuranic waste. Current plans are to use a smaller facility which will cost approximagely $20-30 million. The Discussion Draft reflects this information.

A mortgage reduction candidate is WIPP Waste Acceptance Criteria, based on the construction and operation of the TRU Waste Characterization and Process facility, estimated to cost $150 million (for a Category 2 facility) or $50 million for a shell-structure to permit vendor to set up equipment. Page V-17 says $275. Please explain the differences.

The current strategy to prepare waste for the Waste Isolation Pilot Plant is to build a shell building, called the TRU and Mixed Waste Containment Building, for approximately $50 million. We plan to solicit a vendor to equip and process the waste. If more robust treatment is needed for this waste prior to acceptance by WIPP, a vendor would be needed. This Discussion Draft shows a $15 million operating cost for the vendor processing.

Program Specific Comments

DOE should consider using the reactor buildings for the storage of spent fuel and the canyons to stabilize nuclear materials; another comment was that DOE should build a new processing facility and vitrification building

DOE is, in fact, using the upgraded L Disassembly Basin in the L-Reactor buildings for temporary wet storage of foreign and domestic spent nuclear fuel. Likewise, the canyons are currently operating to stabilize "at risk" nuclear materials and scenarios of operating one or both canyons to stabilize other nuclear materials through 2006, and even beyond, have been developed for this Discussion Draft.

The possibility of a new processing facility and vitrification facility always exists, particularly if new facilities are required to accomplish DOE missions. The "rolling up" of the Accelerating Cleanup: Focus on 2006 concept will permit ongoing evaluation of the need for new facilities as future missions evolve. The public participation aspects of both this process and the NEPA processes will be used to inform the public of new programs and to encourage their participation in the decision-making process.

Due to the numerous problems associated with the startup of the Defense Waste Processing Facility (DWPF), the assumption that this facility will proceed in a timely manner is questionable.

The startup of the DWPF has had some problems, as the startup of any new facility has. In fact, we have had fewer problems than the British and French had with the startup of similar facilities in their countries. We have aggressive plans for working through these problems and are pursuing them.

DOE should include a discussion on the impacts if the Waste Isolation Pilot Plant (WIPP) and Yucca Mountain are not made available per the current planning schedule.

If the Waste Isolation Pilot Plant or Yucca Mountain are not available as currently scheduled, SRS will continue to safely store these materials at SRS. We already have a Glass Waste Storage Building on site and could build another one if necessary while waiting for Yucca Mountain is opened. Some of our transuranic waste is being stored on transuranic pads, and this waste can continue to be stored there until Waste Isolation Pilot Plant is opened.

Why does the approach of closing facilities vary from site to site? Are these approaches discussed between and among the sites? When and how will SRS facilities eventually be decommissioned? Without these plans, life cycle costs will continue to increase as surveillance and maintenance costs continue to add to the life cycle cost.

The approaches for closing facilities varies from site to site due to many reasons. Different sites have different types and levels of contamination, as well as different kinds of facilities. Sites have different future use plans, based on stakeholder input. And they have different state regulators and regulations. All of these contribute to different approaches for cleanup. Different approaches and plans are discussed among the different sites and ideas are also exchanged through DOE-HQ.

While plans do not call for facilities at SRS to be decommissioned during the ten year planning period, our facilities will continue to be maintained in accordance with the site's safety documentation where all risks are contained. As funding becomes available for decommissioning, additional plans will be made and evaluated through NEPA activities including environmental impact statements and environmental assessments. These plans and analyses will also have public involvement opportunities. We hope you will continue your involvement during this planning.

While life cycle costs may increase due to surveillance and maintenance costs, with the current national budget, choices must be made and priorities assigned. SRS's first priorities continue to be the health and safety of our employees and the public and compliance with regulatory laws and agreements.

Is the Savannah River Technology Center (SRTC) developing new technology for waste disposal? Is there free and open exchange of ideas and technology between and among Department of Energy (DOE) sites?

SRTC continues to develop new technology for waste disposal and treatment as well as developing environmental remediation technologies. Ideas and technology are exchanged through the Site Technology Coordination Group, with representatives from all DOE complex sites, which has bi-weekly telephone calls and an annual meeting. In addition, scientists publish papers in various publications and participate in national and international conferences through varying scientific groups, such as American Nuclear Society, American Society of Mechanical Engineers, American Society of Chemical Engineers, and other technical societies.

Will WIPP be the final disposition location for the radioactive waste stored at SRS?

The Waste Isolation Pilot Plant (WIPP) will be the disposition location for some, but not all, of the wastes stored at SRS. Specifically, the site's transuranic wastes will continue to be stored at the site while developing characterization and treatment capabilities, pending eventual shipment to WIPP.
There are other plans for other types of waste. For example, current plans for the sludge from the high level waste tanks, after being processed in the Defense Waste Processing Facility, are for this waste to be shipped to a national repository, possibly at Yucca Mountain, New Mexico. The salts from the high level waste tanks, after the radioactive cesium has been removed form the salt solution, is being processed in the Saltstone Facility. This waste is placed in vaults onsite. The solid low level waste such as contaminated protective clothing, tools and equipment, are being disposed of in engineered concrete vaults, the first facility in the nation to use these state-of-the-art vaults. The characterization of various wastes at SRS determines its final disposition.

Efforts to dispose of plutonium and high level waste must be done in a method that would render it unusable. It must not be reprocessed or burned in reactors for fuel. We should process fuel for use in a commercial reactor. Spent nuclear fuel is a valuable resource and should be used for a productive purpose.

Several SRS-specific Environmental Impact Statements (EISs) are being written to address these concerns. A Notice of Intent for the Spent Nuclear Fuel Management at SRS EIS was issued in December 1996, a draft of this EIS is due in August 1997 and a Record of Decision is expected in January 1998. While the Storage and Disposition of Weapons-Usable Fissile Materials Programmatic EIS addresses plutonium and other materials for the entire DOE Complex, any SRS-specific actions will require an EIS specific before any activities can begin. We encourage you to participate in the public comment periods of these EISs.

The reference to storage or disposal of commercial greater that Class C waste should be removed from the document.

You are correct, this should not have been included in the earlier draft of the Ten Year Plan and has been removed in this Discussion Draft.

My perception is that all DOE plans show nuclear materials or other wastes coming to SRS for temporary storage, but there are no plans showing these materials or wastes being shipped to a national repository. Are any of the other DOE sites receiving these materials or wastes? Past history has shown that it can take decades to have a national repository permitted and built; maybe DOE should start work on the next federal repository.

Issues and concerns such as this one are being addressed in action plans as part of the national Accelerating Cleanup: Focus on 2006 Discussion Draft. There is a specific action plan that addresses the transfer of

waste between DOE sites and will discuss the opening of national repositories. We will forward your comment to DOE-HQ for inclusion in the action plans. Action plans are part of the national Discussion Draft.

SRS has uranium, plutonium, and other nuclear materials which can be used to produce waste. Why doesn't DOE sell these materials to commercial reactors to generate energy?
It has always been United States policy to keep the defense nuclear materials separate from commercial nuclear materials. Unless Congress and the President change this national policy, we will not use our nuclear materials for producing nuclear energy.

Disposition of SRS transuranic waste should be the subject of an action plan. Since we don't know how some of the high activity transuranic waste will be treated, or even if it can be treated so that it can be shipped to the Waste Isolation Pilot Plant (WIPP), the final disposition costs may be significantly higher than expected.

There is an action plan that addresses concerns with transuranic waste, and action plans will be published as part of the national Discussion Draft. Thank you for your comments and we will send your comments to DOE-HQ for consideration in the national Discussion Draft.

The uncertainty of the technology development costs are not understood by Congress.

The Discussion Draft considers technology needs for the Environmental Management Program and also identifies the costs for these technology needs. We will send your comment to DOE-HQ for consideration in the national Ten Year Plan and hope we can explain these uncertainties.

Date: 2/27/97

TASK ACTION PLAN

Revision: 1
I.D. Number 20.14

Issue Statement: Landlord Responsibility

Task Description/Issue: (Brief description of Complex wide issue or concern)

This issue involves the decision process necessary to determine in the Ten Year Plan (TYP) how the Landlord Program will ramp down with completion of the EM mission at SRS to a point that EM would no longer be the majority activity on site and role of landlord would transfer to another Principal Secretarial Officer (PSO).

Objective: (Complex / DOE objective and SRS opportunity to resolve)

1. Define key decision points in the current TYP baseline that will cause significant reductions in the landlord/infrastructure requirements and associated costs.
2. Determine base level of landlord services necessary to maintain minimal presence.
3. Determine that point in the site planning when EM no longer has the majority role, even beyond the TYP.

Planning Assumptions:

1. EM missions proceed as forecasted in the TYP.
2. No new missions are assigned to EM.
3. The landlord program continues as currently forecasted in the TYP.
4. Defense missions do not significantly increase during the TYPl.

Date: 2/27/97 **TASK ACTION PLAN** I.D. Number 20.14 Revision: 1

Resolution Approach:

The landlord program consists of essentially three elements: 1.) area support, 2.) service pools, and 3.) infrastructure base program. Area support and service pools will generally reduce proportionally to the overall reduction of EM mission activities to some as yet undetermined level in accordance with the TYP assumptions. The infrastructure base program is already at a base level and will remain fairly constant throughout the TYP. There is currently nothing in the TYP that will reduce the landlord program significantly enough to cause a transfer to another PSO. In order to effect significant reductions in landlord costs, major facilities/areas must be closed without sizable residual maintenance activities. SRS is currently developing a "Comprehensive Plan" which will cover land use, facility distribution and landlord requirements. This plan will cover also any new missions currently under consideration. It is proposed that this plan specifically address the objectives of the Task Action Plan since it will go well beyond the TYP when completed.

Schedule:

Participants:

All current PSO's having site activities, affected SRS program groups and SRS planning groups, and normal stakeholders will be involved in the plan development process.

Analysis/Documentation:

The decision process, assumptions and conclusions will be fully analyzed and documented in the final plan.

Stakeholder Involvement:

The stakeholder involvement process at SRS has evolved into a program which solicits and addresses stakeholder concerns and issues of environmental management. Groups, such as the Citizens Advisory Board, elect to be included and are given an opportunity to take an active role in the decision making process. Program-specific public involvement is intrinsic in each discrete issue or proposed project. This ensures that impacted stakeholders, as well as members of federal, state and local governments, are given an opportunity to gain a clear understanding of proposed activities so they may provide substantive input. Feedback is then given to these citizens to show how their input has been addressed or incorporated into decision making. This process satisfies both DOE-SR's commitment to public involvement and the public participation requirements of NEPA.

Date: 2/27/97

TASK ACTION PLAN

Revision: 1
I.D. Number 20.21

Issue Statement: HEU Blend Down Mission @ SRS

Task Description/Issue: (Brief description of Complex wide issue or concern)

The surplus HEU Dispositioned ROD was issued July 29,1996. It stipulated that the DOE would make maximum use of the surplus HEU and that SRS would blend down the off-specification surplus HEU. Since then, DOE has signed a Memorandum of Understanding with TVA to provide in excess of 30 metric tons of stable,but off-specification, HEU currently at SRS and Oak Ridge as blend stock for its operations. This includes about 9 tonnes of surplus HEU being stabilized (and blended down) under the DNFSB 94-1 Program. At issue is whether TVA can use the off-specification blended material in its reactors, whether DOE can reach agreement with TVA over suitable cost for this material, and ultimately, whether the canyon facilities will be operated beyond the stabilization mission to complete this disposition campaign. The Ten Year Plan (TYP) assumes that SRS will blend down an additional 25 tonnes beyond the DNFSB 94-1 material. However, canyon facility utilization decisions and the economics of commercial competition (TVA could blend the material commercially) will influence the decision. If either of these fail to support the current decision to blend down the 25 tonnes in the SRS canyons, the TYP should be updated appropriately, to provide for transfer offsite or storage of the unirradiated HEU in a form suitable for long term storage.

Objective: (Complex / DOE objective and SRS opportunity to resolve)

The following DOE objectives will be met with the completion of this task:

1. Meet the DOE non-proliferation goals for the involved materials.
2. Minimize government cost by the generation of revenue through outside sales.

Planning Assumptions:

1. (D) Assuming TVA can use the off-specification blended material in its reactor and TVA decides that SRS blend down the HEU, DOE-SR and TVA will develop an Interagency Agreement concerning the transfer of the remaining 25 tonnes of HEU committed to the TVA.
2. (O) The TVA will provide the means to transport the LEU to a commercial nuclear fuel manufacturer or erect an on site facility for fuel production.
3. (O) The lead Test Assemblies solution will demonstrate that the product material of HEU Downblend Program is suitable for use as nuclear reactor fuel.

D = Decision O = Open issue P = Proposal

Date: 2/27/97 **TASK ACTION PLAN** I.D. Number 20.21 Revision: 1

Resolution Approach:

The product LEU material will not meet the commercial power nuclear reactor fuel ASTM specifications for certain minor uranium isotopic content. TVA and DOE with SRS input will develop the product specs., detailed transfer procedures, and daily inter-action protocols through an Interagency Agreement.
The DOE will provide a representative sample of the material to the TVA for fabrication into test assemblies to demonstrate these off-spec. materials are satisfactory for use as a commercial power nuclear reactor fuel. Upon completion of the tests, the TVA will obtain NRC approval, if necessary, which will allow the use of these materials in commercial power nuclear reactor fuel.

Schedule:

The Comprehensive Plan is expected to start in the last quarter of FY97 and be essentially completed by the second quarter of FY98.

SRS facility utilization decisions and commercial competition may have an adverse affect on this program.

Participants:

Decision makers will be EM 60 along with MD via normal site submittals and reviews. Other departments such as General Counsel (GC) and Environmental and Health (EH) will review issues. Outside organizations involved are the State governments and the Citizens Advisory Board.

Analysis/Documentation:

The HEU Disposition EIS ROD was issued on 7/29/96. A Memorandum of Agreement (MOA) was signed between DOE and TVA in December, 1996 to formalize agreements for transfer of the blended down commercially usable LEU product. The resultant blend down material will be tested to determine suitability as nuclear reactor fuel.
After EM provides Congress its March 1997 report on Canyon Utilization, it may be able to enter into negotiations with TVA to determine economic viability of blending down the 25 -30 MT of the HEU at SRS.

Stakeholder Involvement:

The stakeholder involvement process at SRS has evolved into a program which solicits and addresses stakeholder concerns and issues of environmental management. Groups, such as the Citizens Advisory Board, elect to be included and are given an opportunity to take an active role in the decision making process. Program-specific public involvement is intrinsic in each discrete issue or proposed project. This ensures that impacted stakeholders, as well as members of federal, state and local governments, are given an opportunity to gain a clear understanding of proposed activities so they may provide substantive input. Feedback is then given to these citizens to show how their input has been addressed or incorporated into decision making. This process satisfies both DOE-SR's commitment to public involvement and the public participation requirements of NEPA.

Date: 2/27/97

TASK ACTION PLAN

Revision: 1
I.D. Number 20.26

Issue Statement: Management and Disposition of Alum. Clad Spent Fuel

Task Description/Issue: (Brief description of Complex wide issue or concern)

The issue involves the management and disposition of Department of Energy (DOE) owned aluminum-clad spent fuel. Excluded are those fuels clad in stainless steel or zirconium and those fuels already being stabilized as "at risk" nuclear material as identified in the 94-1 DNFSB Recommendations (e.g. Mk16s /22s TRR and failed EBRII).

Objective: (Complex / DOE objective and SRS opportunity to resolve)

1. Receive and temporarily store DOE owned aluminum clad fuel.
   Aluminum-Clad SNF Processing Candidates currently stored in the RBOF, the reactor basins and canyon storage facilities at SRS are as follows (total number of items is 2722)::
   Metallic Uranium Fuels - Taiwan Research Reactor, Experimental Breeder Reactor II, Sodium Reactor Experiment.
   Oxide Target Materials - Sterling Forest Oxide
   Failed and Sectioned Fuels - Oak Ridge Reactor, High Flux Isotope Reactor, Tower Shielding Reactor

Listed below is an anticipated summary of Al-clad fuel receipts and sources through 2035.
A group of "Problemmatic Fuels" target materials in powdered form to be received under Foreign Research Reactor (FRR) Environmetnal Impact Statement (EIS) Record of Decision (ROD) and identified in Research Reactor Task Team Report (RRTTR) Section 5.2-2.
Other HEU and LEU Fuels include Domestic Research Reactors (Material Test Reactor Equivalent [MTRE] - 9293) (High Flux Isotope Reactor [HFIR] - 290); Foreign Research Reactors (MTRE -19900) (Involute - 85); INEL (MTRE - 6986).

2. Determine and implement a disposition strategy to prepare DOE owned aluminum-clad spent nuclear fuel (SNF) for geologic emplacement.

Planning Assumptions:

1. (O) All DOE owned Aluminum-Clad Spent Nuclear Fuel will be shipped to SRS for treatment and/or interim storage prior to eventual disposition.
2. (O) NEPA will be performed to deterine the best option to treat any DOE aluminum-clad SNF not yet ready for geologic emplacement.

D = Decision O = Open issue P = Proposal

Date: 2/27/97 **TASK ACTION PLAN** I.D. Number 20.26 Revision: 1

Resolution Approach:

The decision making process includes the following key items:
DOE will initiate an EIS in FY97 to evaluate receipt, storage, and treatment alternatives to achieve "road ready" treated SNF.
A decision on treatment technology for "Table 5.2-1" fuel will be made in FY98 and FY99 for problemmatic fuels identified in Table 5.2-2 and other HEU and LEU spent fuel to be received by FY99.
A decision on the need and capability of alternative receiving and storage capability at SRS will be made in FY98.
Presently, there is adequate tempory storage capabilities within the Receiving Basin Offsite Fuel (RBOF) and L Reactor Basins.

Schedule:

A site-specific EIS will be initiated in FY97 and a valid schedule and milestones for receipt and treatment will be established once the ROD is issued. Date for ROD is assumed to be December of 1998.

Participants:

Decision makers will be EM 60 via normal site submittals and reviews. Other departments such as General Counsel (GC) and Environmental and Health (EH) will review issues. Outside organizations involved are the State governments and the Citizens Advisory Board.

Analysis/Documentation:

Analysis for the NEPA process is delineation of all alternatives considered practical including a "no action" alternative as mandated by the NEPA process. For each alternative presented, the impact on the environment, the safety and health of workers and public must be evaluated. After public scoping and hearings on the draft deliverable, a final EIS is issued and the ROD follows.

Stakeholder Involvement:

The stakeholder involvement process at SRS has evolved into a program which solicits and addresses stakeholder concerns and issues of environmental management. Groups, such as the Citizens Advisory Board, elect to be included and are given an opportunity to take an active role in the decision making process. Program-specific public involvement is intrinsic in each discrete issue or proposed project. This ensures that impacted stakeholders, as well as members of federal, state and local governments, are given an opportunity to gain a clear understanding of proposed activities so they may provide substantive input. Feedback is then given to these citizens to show how their input has been addressed or incorporated into decision making. This process satisfies both DOE-SR's commitment to public involvement and the public participation requirements of NEPA.

Section VII

Program Summaries

SECTION VII-1

SAVANNAH RIVER OPERATIONS/FIELD OFFICE SUMMARY

The Department of Energy Savannah River Operations Office (DOE-SR) maintains a force of Federal employees who perform nuclear material stewardship, program management, administrative support and contractor oversight activities to meet the requirements of the DOE Environmental Management Program (EM) at the Savannah River Site. The DOE-SR Program Direction project provides funding for salaries, benefits, awards, training, travel, supplies and materials for Federal employees and for the support service contractors that support the Federal workforce. At Headquarters direction, Program Direction also supports the National Training Center of Excellence. Support service contractors provide technical support services to DOE-SR programs such as environmental, safety, health and quality assurance, safeguards and security, training, and budget and planning. They also provide support to engineering and projects for project tracking, reviews of construction projects over $250,000, and condition assessment surveys. In addition, the Program Direction Project supports site-wide emergency preparedness program development, management, administration, and implementation.

The DOE-SR External Program Support Project for Environmental Restoration has varied mission activities. It supports South Carolina Department of Health and Environmental Control (SCDHEC) participation in remedial actions for cleanup of Site waste areas. SCDHEC participates in the planning, selection, and implementation of cleanup activities, participates in community relations activities and dispute resolution, and verifies sampling and analytical results of health and environmental concern. Through an interagency agreement, the Corp of Engineers performs detailed reviews of major closure activities, cost estimate and schedule development and verification, and independent design reviews. The project also includes grants to SCDHEC and the Georgia Emergency Management Agency which assure the citizens of SC and Georgia that effective emergency preparedness is maintained for their protection.

The DOE-SR Program Support project provides for support of payments in lieu of taxes, provides grants to the three Counties in which the Savannah River Site resides, the Historically Black Colleges and Universities program, the South Carolina (SC) Water Resources Commission, and the SC Universities Research and Education Foundation, and interagency agreements. For the convenience of stakeholders this program also supports the operation and maintenance of a public reading room which houses documents relative to all the DOE sites and the Defense Nuclear Facilities Safety Board. Additional activities include support for cooperative and interagency agreements to maintain a long-term observation network to monitor water level, water and air flow paths, water quality, and increases/decreases in ground water pumping.

The DOE-SR Program Support project also includes funds to support the return of foreign research reactor (FRR) spent nuclear fuel (SNF) to the site. This includes coordination with state agencies, such as the SC Law Enforcement Division and the SCDHEC, grants and other costs incurred by these agencies and Federal agencies in support of this program, transportation and activities such as facility assessment visits.

The primary site Management and Operating (M&O) contract is with Westinghouse Savannah River Company. However, DOE-SR accomplishes additional major site EM Program activities through contracts and a variety of procurement vehicles. The activities performed by each contractor are included in a project as described in the following paragraphs:

The M&O Contractor for security services, Wackenhut Services, Incorporated - Savannah River Site (WSI-SRS), provides, trains and maintains a uniformed protective force for the physical protection of DOE-SR

security interests. To meet the varied requirements of the contract, WSI-SRS employs both armed and unarmed security personnel, supervisors, and other administrative personnel. Responsibilities include protection against theft of special nuclear material and other government property, prevention of radiological, toxicological and industrial sabotage, and protection of site employees and the public.

Through an interagency agreement with the Forest Service, DOE-SR has oversight responsibility for a program of natural resource management and research to protect soil and provide a healthy forest within a Natural Environmental Research Park. The Savannah River Forest Station provides environmental protection and responsible stewardship of the site natural resources, wildfire protection, management of secondary roads and boundaries, environmental research, Site watershed protection, and management of threatened and endangered wildlife located on the site. The Forest Service provides aerial photography and terrain model development, soil stabilization, sediment control, wetlands protection and maintenance to ensure long term erosion control as a part of the Environmental Restoration External Program Support Project.

Savannah River Ecology Laboratory (SREL) is managed through a cooperative agreement with the University of Georgia. SREL's ecological research activities are divided into four programs: Radioecology, Environmental Chemistry, Ecotoxicology, and Ecosystem Health. Additional research includes studies on animal populations to determine potential pathways of contaminants and protection of endangered species. SREL also performs evaluations to determine the potential of experimental approaches for soil remediation and restoration of aquatic habitats.

SECTION VII-2

NUCLEAR MATERIALS STABILIZATION AND STORAGE PROGRAM SUMMARY

Savannah River Site's nuclear material separation facilities were constructed in the early fifties for the production and storage of nuclear materials for Defense Programs. With the end of the Cold War in the late 1980's, the Secretary of Energy directed that the SRS cease defense-related plutonium and uranium manufacturing activities. This halt in the production of nuclear weapon material suspended the manufacturing pipeline. The physical characteristics and chemical nature of the various nuclear materials left unprocessed in the facilities are not appropriate for long-term storage and in their current form represent an unacceptable level of risk to site workers, the public, and the environment. In 1994, the Defense Nuclear Facilities Safety Board (DNFSB) recommended that DOE develop and implement a plan, on a high priority basis, to stabilize on-site plutonium, uranium, and other nuclear materials into forms suitable for safe "interim" storage by May2002.

The Nuclear Materials Stabilization and Storage (NMSS) Program's Phased Canyon Strategy as described in this Discussion Draft attempts to balance funding availability with a systematic approach to the execution of the DNFSB 94-1 Implementation Plan commitments for the stabilization and interim storage of the "at-risk" surplus nuclear materials. Materials to be stabilized are those currently in inventory at SRS including materials identified in Table 5.2-1 of the *Technical Strategy for the Treatment, Packaging, and Disposal of Aluminum-Based Spent Nuclear Fuel Report* dated May 1996. Following the stabilization phase, facilities will be deactivated to minimize the surveillance and maintenance costs necessary to maintain the facilities' safety envelopes until decommissioning is completed.

The Phased Canyon Strategy calls for the operation of both canyons and B Lines through FY 1999 followed by the shutdown of F-Canyon's Purex process and FB-Line's main line process. Stabilization activities for the currently identified materials would be complete in all NMSS facilities in FY 2004. Under this Discussion Draft, operation of both canyons in the near term significantly reduces life cycle costs while maintaining complex-wide flexibility until a decision is made in March 1998 on future stabilization missions involving materials from other DOE sites. Funding requirements for the full scope Phased Canyon Strategy are approximately $350 million in FY 1998 and approximately $380 million in FY 1999, representing an increase of about $55 million above the original planning target for FY 1998 and $65 million above the original planning target for FY 1999. A key element of this strategy is the construction of a $167 million (including FY 1996 cost) state-of-the-art Actinide Packaging and Storage Facility (APSF) for thermal stabilization, repackaging, and safe, secure, cost-effective consolidated interim storage of the special nuclear materials generated from SRS stabilization. APSF is an approved FY 1997 Line Item and requires approximately $21 million ($9.5 million from Material Disposition - MD) in FY 1998 and $57 million ($8.5 million from MD) in FY 1999 to maintain schedule.

Ongoing DOE stabilization and disposition studies are considering beneficial use of SRS facilities to meet DNFSB 94-1 Implementation Plan milestones for "at-risk" materials currently at other DOE sites and as alternatives in various MD studies for fissile materials. If SRS facilities are selected for additional stabilization missions (e.g., Mixed Oxide Fuel - MOX), materials and/or residues from other sites, and highly enriched uranium dilution), the stabilization mission will increase in scope and duration, and eventually directly link and transition into disposition activities. Some of these risk/mortgage reduction activities may necessitate operation of both canyons and B Lines for timely completion of selected missions.

If SRS is not selected, facility decontamination and decommissioning (D&D) projects will be initiated when funding is available to reduce life cycle costs to a minimum.

Existing Project Baseline Summaries are not consistent with the recently developed phased operating strategy for the canyons and B-Lines but will be updated to reflect the canyon strategy as part of the upcoming public review of the Discussion Draft and budgetary process.

PROGRAM OBJECTIVES

The NMSS Program will execute decisions recorded in the *Interim Management of Nuclear Materials (IMNM) Environmental Impact Statement (EIS)* and strive to meet commitments contained in the Secretary of Energy's DNFSB 94-1 Implementation Plan, as well as the Plutonium and Highly Enriched Uranium (HEU) Vulnerability Assessments.

The guiding principles of the NMSS Program are to manage and eliminate the most serious risks posed by the nuclear material at the SRS, protect worker health and safety, minimize the generation of waste, create a collaborative relationship between DOE and its regulator and stakeholders, focus technology development on cost and risk reduction, and strengthen management and financial control.

The NMSS Program objectives are: (1) to provide safe interim storage of in-process materials (plutonium (Pu), neptunium (Np), highly enriched uranium (HEU), and americium/curium (Am/Cm)) now in SRS facilities; (2) to transform "at-risk" materials into forms suitable for long term interim storage in accordance with DOE product and storage standards; and (3) to de-inventory and decommission facilities not needed to execute future material disposition decisions. The on-site materials are currently in working inventories in F Canyon, FB Line, H Canyon, HB Line, 235-F, Receiving Basin for Offsite Fuels (RBOF), K-Reactor Basin, and L-Reactor Basin.

NMSS facilities (F Canyon, FB Line, H Canyon, HB Line and 235-F vaults and various ancillary facilities) will be operated based on five site imperatives: safety, disciplined operations, continuous improvement, teamwork and cost effectiveness. Specific objectives are:

- Foster continuous improvements in safety performance and discipline of operations.
- Provide surveillance and maintenance of existing nuclear material inventories and facilities as required to protect workers, the public and the environment.
- Complete the DNFSB 94-1 stabilization commitment activities by 2004 by operating both F and H Canyons and B Lines.
- Complete stabilization in F Canyon of selected spent nuclear fuel as identified on Table 5.2-1 of the *Technical Strategy for the Treatment, Packaging, and Disposal of Aluminum-Based Spent Nuclear Fuel* report by September 1998.
- Provide flexibility and back-up capability for meeting complex-wide DNFSB 94-1 commitments
- Shut down F-Canyon Purex process at the end of FY 1999.
- Complete FB-Line stabilization activities in 1999 and shut down the mainline process at the end of FY 1999, continue residue characterization and repackaging activities into FY 2003.
- Design and build the Americium/Curium (Am/Cm) Vitrification project and complete Am/Cm stabilization in 2000.
- Initiate design, construct, startup and operate by the end of FY 2001 a new Actinide Packaging and Storage Facility for repackaging, consolidation and safe/secure interim storage of nuclear materials pending disposition.

- Stabilize Mark 16/22 fuel, remaining spent nuclear fuel (SNF) from Table 5.2-1 of the *Technical Strategy for the Treatment, Packaging, and Disposal of Aluminum-Based Spent Nuclear Fuel* and other miscellaneous fuel, and continue dilution of highly enriched uranium to 5% uranium by operating H Canyon into FY 2001.
- Complete final stabilization of on-hand plutonium and neptunium in HB-Line in FY 2004.
- Optimize operation and maintenance of NMSS facilities based on safety requirements, mission duration, and available resources.
- Identify opportunities to leverage NMSS facilities, process technologies, and personnel capabilities to beneficially address DOE's national program of nuclear material stabilization, storage, and disposition.
- Continue to store depleted uranium (DU) and additional low enriched uranium (LEU) resulting from stabilization activities.
- Maintain capability to repackage material currently in storage if need arises.
- Maintain deactivated "old" HB Line in a surveillance and maintenance state until funding is available to proceed with deactivation and decommissioning.

ASSUMPTIONS

Cost and schedule can be significantly influenced by the assumptions listed below.

- Funding assumes re-engineering and continually improving cost performance to offset inflationary impacts. The specifics of how this will be accomplished have not been determined and failure to realize these savings could have serious consequences on the SRS ability to fulfill its mission and program commitments. The approach outlined in this Discussion Draft has been developed with the underlying strategy of completing the "at-risk" material stabilization as quickly as possible while balancing near term investment funding levels versus projected life cycle costs.
- The baseline Discussion Draft includes stabilization of "at-risk" nuclear material in inventory at SRS as defined in the DNFSB 94-1 Implementation Plan including material from Table 5.2-1 of the *Technical Strategy for the Treatment, Packaging, and Disposal of Aluminum-Based Spent Nuclear Fuel Report.*
- The cost and schedule impact for stabilization of additional EM materials now at other sites, or for the disposition of MD materials, will be incremental to the defined baseline program if processing at SRS are directed for these materials.
- The decision to operate both canyons or just one (H Canyon) beyond FY 1999 is expected to be made by March 1998.
- The existing and future highly enriched uranium (HEU) solutions resulting from stabilization of SNF will be isotopically diluted to 5% low enriched uranium (LEU) and stored as a liquid until transferred to the Tennessee Valley Authority (TVA).
- The Actinide Packaging and Storage Facility Project is funded and completed as scheduled and all of the stabilized solid product forms are consolidated into this facility pending final disposition.
- In order to process neptunium solutions into oxide form for stabilization and storage, a modification to the Record of Decision (ROD) for the INMN EIS will be required.
- Neptunium solution will be stabilized in H Canyon and H B-Line facilities into an oxide form with anticipated interim storage in the APSF facility.
- In order to process plutonium solutions into oxide form for stabilization and storage, a modification to the ROD for the INMN EIS will be required.

- The plutonium solution in H Canyon will be stabilized into an oxide form through processing in H B-Line for interim storage in the APSF facility.
- In order to stabilize spent fuels as listed in Table 5.2-1 of the *Technical Strategy for the Treatment, Packaging, and Disposal of Aluminum-Based Spent Nuclear Fuel Report*, a NEPA *analysis and* decision will be required.

2006 END STATE ACCOMPLISHMENTS TO DATE

- Restarted hot operations in FB Line in support of plutonium stabilization.
- DOE Operational Readiness Review (ORR) Team recognized F Canyon for excellent conduct of operations and safety cultures.
- Fundamentals training for all operating facilities was completed and accredited, culminating a three year effort.
- Completed Conceptual Design Report documentation for the APSF project.
- Completed stabilization/repackaging of 12 containers of plutonium-239 in direct contact with plastic.
- The SRS Linking Document Database, an automated on-line system of safety documentation requirements, continues to be recognized as the DOE Complex model for ensuring facility operation within the safety envelop.
- Completed restart of F Canyon and stabilization of F Canyon plutonium-239 solutions.
- Complete stabilization of Mark-31s targets to metal.
- Developed a bagless transfer technology to meet DNFSB 94-1 commitments for repackaging plutonium metal and began installation in FB Line.
- Converted current plutonium-238 inventory to oxide suitable for future National Aerospace Administration (NASA) missions.
- Completed stabilization of plutonium-242 solution in H Canyon and H B-Line
- Completed Building 247-F deactivation and submitted a plan for decommissioning to DOE
- Completed preparations and initiated cold runs for the restart of H Canyon.

MISSION BEYOND 2006

Beyond 2006 the NMSS mission is primarily the continued safe and secure storage of stabilized material. APSF will house the stabilized solid plutonium and neptunium materials. The depleted uranium oxide will have been repackaged and housed in a new facility for compliance with state and federal safeguards and environmental protection regulations. Low-enriched uranium solutions will either have been transferred offsite based on commercially feasible disposition or will be converted to oxide and remain stored in an SRS facility under minimum surveillance and maintenance (S&M) costs. The vitrified americium/curium items will be stored at a shielded SRS facility under minimum S&M costs awaiting transport to another site for possible future recovery.

There are no additional stabilization missions planned beyond 2004. Currently there are studies and planning scenarios for the stabilization of offsite materials which could be more efficiently stabilized utilizing SRS facilities. If no additional missions are available, the canyons and ancillary facilities will be brought to the lowest S&M cost for deactivation and eventual turnover to deactivation and decommissioning (D&D).

PATH FORWARD/SITE-SPECIFIC STRATEGIES

Achievement of End State

The final end-state for the F and H Area Stabilization projects is for all of the on-site "at-risk" nuclear materials to be stabilized into a form suitable for long term storage. Solid material will be stored in either the Actinide Packaging and Storage Facility or in other facilities suitable for long term storage. Stabilized highly enriched uranium will be diluted and stored as a liquid on site pending shipment to TVA. If SRS is not selected for alternative missions beyond the baseline program, the facilities will be de-inventoried and facility deactivation projects will be initiated to reduce surveillance and maintenance cost to a minimum level pending future D&D. If these SRS facilities are used for future alternative missions, facility operations may be significantly extended. Based on this scenario, the de-inventory and initiation of facility deactivation projects for those facilities impacted would not occur until after the new missions were completed.

Key Assumptions and Savings Opportunities

The Mixed Oxide Fuel program and the HEU dilution programs provide opportunities for privatization initiatives with various outside groups. For example, diluted uranium (5% LEU) studies are currently in progress with TVA for use of this material in commercial nuclear power reactors. Technology advances are necessary to enable us to move forward in the field of vitrification or ceramic encasement of the "at-risk" nuclear material. New methods of storage and containers suitable for long term interim storage require demonstration of performance to meet objectives.

STAKEHOLDER INVOLVEMENT

Significant opportunity for stakeholder involvement has been and will continue to be provided throughout the NEPA process as progress continues on NMSS projects. The inter-site transfer of plutonium bearing material for stabilization, storage, and disposition will be addressed as part of the National Dialogue in regional or national workshops being planned in the spring through fall of 1997. SRS local stakeholders will address the issues via the SRS Citizen Advisory Board meetings and public meetings. The Discussion Draft projects will utilize the established stakeholder relationships to generate continued input and involvement.

MORTGAGE REDUCTION

The Phased Canyon Strategy in addition to balancing funding availability with DNFSB 94-1 Implementation Plan commitments, will reduce life cycle costs in NMSS facilities by over $1 billion. Additional life cycle cost savings will be realized by SRS as the accelerated NMSS program expedites de-inventory of the reactor basins allowing those surveillance and maintenance costs to decrease.

RISK REDUCTION

In May 1994 the DNFSB recommended that nuclear materials left in unstable states in the SRS canyons and B-Lines when operations were suspended be converted to more stable forms as soon as possible. DOE evaluated the risks posed by these materials through the *Plutonium Vulnerability Study*, *Highly Enriched Uranium Vulnerability Study*, and the *Interim Management of Nuclear Materials Environmental Impact Statement* and decided to reduce or mitigate the risks and vulnerabilities associated with these materials through stabilization. Reduction of these risks to the employee, the public, and the environment to agreed upon acceptable levels is the primary driver for implementation of the F and H Area Stabilization Projects and the Actinide Packaging and Storage Facility Project. Through completion of the outlined strategy, risks associated with DOE excess materials will be systematically and effectively reduced to levels which have been developed through the cooperation of DOE, the prime operating contractors, the public, and congressional oversight groups. Protection of the public, the workers, and the environment can then be reliably maintained with a high degree of confidence and minimum expenditure of resources.

The proposed Phased Canyon Strategy to operate both canyons through FY 1999 maintains the maximum complex-wide flexibility for risk and mortgage reductions while DOE continues to evaluate options and priorities for managing the complex-wide risks associated with excess nuclear material. Spent fuel from foreign and domestic reactors, for example, is being shipped to SRS for disposition to reduce the world-wide nuclear threat. Although the funding needed to convert this fuel to a form suitable for extended storage is not currently included in this budget and the accumulation of this material at SRS will temporarily increase SRS risks until alternate fuel studies are completed and implemented, overall risk from material for which DOE is responsible is reduced by consolidating the material in a secure location. Likewise, additional complex-wide risk reduction will result from the use of SRS currently available stabilization capabilities to accelerate disposition of materials at other DOE sites. Other DOE "at-risk" materials (ash, residues) also provide an opportunity to utilize SRS operating capability to further reduce the DOE complex risk.

OTHER OPPORTUNITIES/ISSUES

Other opportunities and issues for the NMSS Program include the following.

1. SRS facilities can be utilized to stabilize other "at-risk" plutonium residues (ash, and sand, slag and crucible) currently stored at Rocky Flats and Hanford. The trade studies concluded that use of SRS facilities to stabilize these materials is a cost effective and high confidence (utilizing demonstrated technology) approach to managing these materials.

2. HEU blend down would dissolve unirradiated fuel tubes and ingots stored at SRS and Oak Ridge, dilute the resulting uranium to 5% LEU with existing depleted uranium (DU) inventory solutions and excess material from other sites (e.g., Fernald), and make it available for beneficial use as commercial nuclear power plant fuel. Significant mortgage reduction savings may be realized depending upon the current storage location and volume of the materials. This approach lends itself favorably to privatization of the blend down operation for commercial applications.

3. The Plutonium Disposition Project would involve use of SRS facilities to either consume the plutonium in fabrication of mixed oxide fuel (MOX) for use in commercial nuclear power reactors or vitrify the plutonium (including plutonium residues) into glass logs for long term storage or some combination of these two alternatives. The large scale plutonium handling and processing capability at SRS is the only such facility in the country capable of providing the common front-end plutonium treatment capability to supply feed to either of the leading disposition technologies. This $2.8 billion program, completed during the 10-year period, would result in estimated life cycle savings of $1.2 billion plus attendant

mortgage reduction benefits. The cost data is found in Table 4-1 (Existing Reactor Alternative Cost) DOE *Document Technical Report for Surplus Weapons-Usable Plutonium Disposition* that was issued on July 17, 1996.

4. The Actinide Packaging and Storage Facility is being designed to accommodate modular expansion. Savings can be realized with expansions to provide storage for other nuclear materials from other DOE sites.

5. Proposed plutonium recovery, mixed oxide fuel and immobilization processes require extensive receiving, unpackaging, packaging, digital radiography, assay and material control capability as well as both long and short-term and International Atomic Energy Agency (IAEA) inspectable vault space. Combining any or all of the other process activities with the APSF achieves a reduction in the necessity for duplication of support facilities and thus achieves savings at a level not easily ignored.

6. Conventional treatment of high fired oxides and residues by leaching in hot nitric acid solution dissolves the plutonium oxide very slowly and rarely goes to completion. SRS proposes to evaluate the mediated electrochemical oxidation process to stabilize the high fired oxide materials. This process, called Mediated Electromechanical Oxidation (MEO) of High Fired Oxides and Residues, relies on the ability of silver (valence II) to quickly and effectively oxidize and dissolve plutonium oxide without dissolving the silica matrix in which it resides.

SECTION VII-3

HIGH LEVEL WASTE PROGRAM SUMMARY

SUMMARY

The SRS Accelerating Cleanup: Focus on 2006 Discussion Draft is based on a Department budget for Environmental Management (EM) of $6 billion (High Planning Case). This section discusses the end states at this funding level as well as the impacts of an EM budget of $5.5 billion (Low Planning Case). The key attributes of the Discussion Draft will result in the following:

- Removal of waste from 14 of the 24 high-risk waste storage tanks;
- Final closure of 14 of 24 high-risk waste storage tanks; and
- Immobilization of 37% of the high level waste (HLW) into a safe final waste form

The High Planning Case is compliance driven and will complete the High Level Waste (HLW) mission at SRS in 2025, which is three years earlier than the Federal Facilities Agreement regulatory commitment and fully meets the Site Treatment Plan regulatory commitment to produce an average of 200 canisters per year.

The incremental funding provided to the program from the Low Planning Case funding level (Department budget of $5.5 billion) to the High Planning Case funding level will result in a reduction of $1 billion in the life cycle cost for the High Level Waste Program. In addition to the favorable mortgage reduction potential, the High Planning Case also significantly reduces the risk of environmental releases at the site by removing high level liquid radioactive waste from underground storage tanks earlier.

MISSION AND OBJECTIVES

The mission of the SRS High Level Waste Program is to:

- Safely store the site's existing inventory of high level waste (HLW);
- Support other critical site production and cleanup missions by ensuring that tank space is available to receive newly generated waste;
- Volume reduce and thereby stabilize HLW by evaporation;
- Pretreat HLW for subsequent treatment and disposal;
- Vitrify HLW, and then store and ship the canisters to the federal repository for final disposal;
- Treat and dispose of the low level waste fraction resulting from HLW pretreatment as Saltstone grout;
- Ensure that risks to the environment and human health and safety from HLW operations are eliminated or reduced to acceptable levels.

Completion of this mission will result in the permanent disposal of the 34 million gallons of HLW currently stored in 51 interim underground waste storage tanks as well as all future waste from planned nuclear materials stabilization. The high level fraction of the removed waste will be processed into an estimated 5,600 borosilicate glass canisters which will be temporarily stored onsite until the year 2015, the forecasted

date that the federal repository will be available. The low level fraction will be processed into Saltstone grout and disposed of onsite. After waste is removed from each waste storage tank, the tank will be closed to reduce surveillance and maintenance costs. At the completion of the HLW program, similar closure activities will be completed for the HLW processing facilities.

ASSUMPTIONS

This Discussion Draft is based on the following assumptions:

- The Site Treatment Plan regulatory commitment to produce an average of 200 canisters of waste per year will be met or exceeded
- The Federal Facility Agreement commitments to remove waste from the 24 high-risk waste tanks by 2028 will be met or exceeded
- The SRS Separations facilities will complete the DNFSB 94-1 stabilization mission by FY 2006.
- The Federal Repository will be available to accept approximately 500 canisters per year beginning in FY 2015.
- All HLW facilities will be de-inventoried, stabilized and left in a low maintenance mode
- The institutional care and further environmental remediation actions required for HLW facilities after the end of the HLW program mission were not included in the cost baseline

FINAL END STATE

The final end state for the HLW program is that all HLW will be removed from the 51 waste storage tanks and the low level fraction disposed of onsite as Saltstone grout. The waste storage tanks will be water washed and filled with a stabilizing material. The high level fraction will be vitrified into borosilicate glass canisters which will be transferred to a federal repository. All remaining HLW facilities will be de-inventoried, stabilized and left in a low maintenance mode.

FY 2006 VISION

The Accelerating Cleanup: Focus on 2006 Discussion Draft assumes $75 million of incremental funding over Low Planning Case, primarily in FY 1999 and FY 2000, and will provide significant risk reduction and a $1.8 billion life cycle cost savings for the site. The 2006 end states for the Discussion Draft are:

- **14 High-Risk Tanks Emptied**

  The HLW Program will have removed waste from 14 of the 24 "high-risk" waste tanks by FY 2006. These high-risk tanks include 9 tanks that currently have inactive leak sites, 8 of which are also situated in the water table. These tanks store over 111 million curies of high level waste. The removal of HLW from these substandard tanks will significantly reduce the risk of environmental releases at the site.

- **14 of 24 High-Risk Tanks Closed**

  Additional funding of $70 million in total over the ten-year planning period will allow 14 of the 24 high-risk waste tanks to be closed and filled with a stabilizing material. This will allow the closure of large sections of the H and F Tank Farm areas in the FY 2007-2012 timeframe, thus reducing the continuing surveillance and maintenance costs and resulting in savings of approximately $50 million per year.

- **Canister Production**

  Canister production rates will increase during the ten year planning period from 200 canisters per year in FY 1999 up to 250 canisters per year by FY 2005. This will allow 2080 of the 5600 canisters of waste to be produced (37% by volume). This increase in production rate will allow total program completion by FY 2025 which is 3 years earlier than the Federal Facilities Agreement (FFA) regulatory commitment and fully meet the Site Treatment Plan regulatory commitment to produce an average of 200 canisters per year.

- **Life Cycle Cost**

  The life cycle cost for the High Level Waste Program in the High Planning Case will be $14 billion.

In the Low Planning Case the following activities will be funded:

- **9 High-Risk Tanks Emptied**

  The HLW Program will have removed waste from only 9 of the 24 "high-risk" waste tanks by 2006. These high-risk tanks include the 6 tanks that currently have inactive leak sites, 3 of which are also situated in the water table. These tanks store 71 million curies of high level waste. The removal of HLW from these substandard tanks will reduce the risk of environmental releases at the site.

- **9 of 24 High-Risk Tanks Closed**

  Additional funding of $40 million in total over the ten year planning period which will allow 9 of the 24 high-risk waste tanks to be closed and filled with a stabilizing material. This will allow the closure of large sections of the H and F Tank Farm areas in the FY 2010 - 2015 timeframe, thus reducing the continuing surveillance and maintenance costs and resulting in savings of approximately $50 million per year.

- **Canister Production**

  Canister production rates will be limited in FY 1999 - FY 2002 to 100 Canisters per year. By the end of 2006, production will increase to 200 canisters per year. This will allow 1,700 of the 5,600 canisters of waste to be produced (30% by volume). This production rate will allow total program completion by FY 2023, which is 5 years earlier than the Federal Facilities Agreement regulatory commitment. However, in the first 5 years of the program, we will not meet the Site Treatment Plan regulatory commitment to produce an average of 200 canisters per year.

- **Life Cycle Cost**

  The life cycle cost for the High Level Waste Program in Low Planning Case will be $16 billion.

In addition to the favorable mortgage reduction potential that the baseline case provides, it also significantly reduces the risk of environmental releases at the site. The SRS Citizens Advisory Board stated in their Recommendation #12 that:

> "...the greatest risk to the public, workers and the environment are the chemical reprocessing wastes stored in the high-level waste tank farms. Outside of operational safety, the discharge of this obligation should have the highest funding priority by DOE."

The acceleration of the removal of waste from high-risk tanks, tank closure and increased canister production will reduce the above risks by immobilizing the waste into glass and grout thereby substantially reducing the risk of future environmental damage.

PROGRAM OUTPUTS

The High Level Waste Program outputs are:

- Direct support for other SRS production and stabilization programs;
- Production of an estimated 5,600 borosilicate glass canisters and shipment to a Federal Repository for final disposal;
- Disposal of the low level fraction onsite as Saltstone grout;
- Closed storage tanks and processing facilities that will only require institutional-type surveillance and maintenance.

OPTIONS AND OPPORTUNITIES

Many of the HLW improvements have been incorporated into the baseline plan; however due to sitewide funding shortfalls in FY1997 - FY 2002:

- Tank Closures are limited in the FY1997- 2003 time frame,
- Canister Production levels are not increased above 200 canisters until 2005

Increased funding levels in FY 1997 - FY 2002 would allow improvements and would result in additional life cycle cost savings and risk reductions.

SECTION VII-4

ENVIRONMENTAL RESTORATION SUMMARY

The Savannah River Site Environmental Restoration (SRS ER) mission is to effectively and efficiently remediate inactive waste sites including contaminated groundwater.

The objectives of the ER Program include the following:

- Contain or treat known contamination at inactive sites,
- Vigorously assess the uncertain nature and extent of contamination at other sites,
- Maintain realistic planning, scheduling, and budgeting for remediation,
- Develop and implement innovative, cost-effective technologies to facilitate compliance with applicable laws, regulations and agreements,
- Comply with environmental laws and regulations,
- Maintain superior levels of worker health and safety, and
- Protect public health and the environment.

Three major components encompass the various program responsibilities: (1) Remedial Action (assessment, cleanup) (2) Post Closure Management, and (3) Program Management. The goal for all ER activities is to ensure that the risks and hazards from inactive waste sites are either eliminated or reduced to within prescribed, regulatory required, and safe levels. ER's vision is to exceed the needs and expectations of our stakeholders and become the standard of excellence for environmental restoration through the application of experience and leading technology by highly qualified professionals.

2006 END STATE ACCOMPLISHMENTS TO DATE

There are currently 467 release sites in the program, of which 136 have been either remediated or determined that no further action was required through the end of February 1997.

The following release sites have been successfully closed: F Area Seepage Basins, H Area Seepage Basins, F, H, K, and P Area Acid Caustic Basins, Lost Lake, M Area Settling Basin, and Mixed Waste Management Facility.

2006 END STATE AND REMAINING ACTIONS

This Discussion Draft assumes no acceleration of the program. Remedial construction activities for all high risk sites will be complete by FY2010. Remediation will continue at medium and low level risk sites until closure by FY2020. Activities will include the following:

- Groundwater remediation operations at high risk plume sites .
- Remediation of medium and low risk sites in program until closure.
- Maintenance and monitoring at closed sites.

No decommissioning activities are included in the Discussion Draft for ER.

PATH FORWARD/SITE-SPECIFIC STRATEGIES

There are currently 467 release sites in the program, of which 136 have been either remediated or determined that no further action was required through the end of February 1997. The Discussion Draft assumes 75% of the sites in the Site Evaluation Program (initial screening) will proceed to no-further-action status. The Discussion Draft also assumes 80% of the sites needing further action after the screening from the Site Evaluation Program will proceed through a formal assessment process. The assessment process for these sites require 3 years to secure a Record of Decision

OTHER OPPORTUNITIES/ISSUES

The overall SRS ER Program is designed to complete all high risk remediation in concert with regulatory agreement and stakeholder input. The key issues are shown below:

- To continue development and implementation of lessons and innovative technology learned from the commercial sector that are appropriate for environmental restoration work.
- To work with regulators in streamlining decision document requirements.

Resolutions to improve program performance therefore are to minimize duplication between Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requirements, collaborate on the integration of regulator and DOE teams to expedite field work, apply commercial standards to ER activities, determine land use designations (to help define cleanup standards).

MORTGAGE REDUCTION

Achievement of the efficiency savings may result in opportunities for mortgage reduction.

RISK REDUCTION

The risk to the health of the public or on site workers is evaluated by identifying contaminants (which are a health hazard), and the likelihood of exposure to the contaminants. The chance for exposure to the contaminants to a person is based on the path of the contaminant from its source to a person (or receptor). Risks are estimated by a probability that a health impact will occur. The ER program is established to reduce the risks resulting from environmental releases that either are occurring or have occurred in the past by either eliminating the source of the hazard, collecting the contaminant or reducing the likelihood of exposure to the hazard.

Under the two funding scenarios considered in this Discussion Draft the ER program is provided funding to address contaminant sites. However, the difference in the scenarios deals with the ability of the ER program to eliminate the source of the contamination rather than stabilize the contamination after it has been released to the environment. The longer the contaminant remains unconfined or uncollected the more it spreads which results in a larger area with smaller concentrations eventually requiring cleanup. Generally, experience has shown that the larger the area and the lower the concentration of contaminant the more costly the cleanup over the long term. Consequently the high budget case which allows for early action is

the more desirable because it: (1) lessens the possibility of contamination spreading, (2) reduces the potential for either public or on-site worker exposure, and (3) reduces the overall cost of the cleanup by earlier action.

ACCELERATION TO END STATE

Achievement of the efficiency savings may result in opportunities for acceleration to the end state.

SECTION VII-5

SPENT FUEL STORAGE PROGRAM SUMMARY

The Spent Fuel Storage Program mission consists of four major elements: (1) Site Fuel, (2) unirradiated highly enriched uranium (HEU), (3) heavy water, and (4) research reactor fuel. The Research Reactor Spent Fuel Storage Program (SFSP) will safely receive and store, for an interim period, approximately 30,000 aluminum-based fuel assemblies from foreign and domestic research reactors. These fuel receipts are currently scheduled to continue until FY 2035. Initially, the spent fuel will be received and wet-stored in the L-Reactor Fuel Disassembly Basin or the Receiving Basin for Offsite Fuel (RBOF). A new, privatized Transfer and Storage Service (TSS), with associated facilities will be available during FY 2002 to receive spent fuel from offsite, and from L Basin and RBOF as the fuel basins are deinventoried. Assuming that the Nuclear Regulatory Commission accepts the direct disposal option, the spent nuclera fuel (SNF) will be packaged by the TSS in a "road ready" form for both shipment to and emplacement in the federal repository. If direct disposal is not deemed to be viable, an additional Treatment Facility (at $100 million construction; $15 million annual operating) will be required before the SNF can be packaged and interim stored in a "road ready" condition. In addition, materials not suitable for direct disposal (or other treatment) will be shipped to the SRS canyon facilities for stabilization processing, dependent on a SRS Site-Specific Spent Nuclear Fuel EIS, currently in preparation.

Site fuel (Mark 16 and 22 assemblies) are currently stored in the Disassembly Basins of L Reactor and K Reactor. The site fuel will remain safely "wet-stored" in the disassembly basins until it is shipped to the SRS canyon facilities for processing, as recommended by DNFSB 94-1. While the site fuel is in storage, the SFSP will provide surveillance and maintenance, including corrosion monitoring, water quality control and monitoring, radiological monitoring, nuclear materials accountability, and, with the site's security contractor, provide physical security. Transportation of the site fuel to the canyons requires re-certification of the site shipping casks during the next two years.

Unirradiated HEU is stored in K Reactor in the forms of fresh fuel (Mark 22), ingots of melted-down Mark 16 and Mark 22 assemblies, miscellaneous fuel tubes, and miscellaneous inventory. The unirradiated HEU is stored in the Assembly Area, including Fuel Storage, the presentation point, slug storage, and receiving bay.

Inventories of heavy water will be purified for both future mission/DOE requirements and outside sales of the excess inventory. The heavy water rework facilities will operate on a self- funding basis using the sales revenues to offset operating costs.

MISSION AND OBJECTIVES

The mission of the SRS SFS Program is to safely manage spent nuclear fuel, unirradiated HEU and Heavy Water at the site, including aluminum-based spent fuel received from foreign research reactors (FRR), domestic research reactors (DRR), and Idaho National Environmental and Engineering Laboratory (INEEL). A portion of the SFS mission is to safely maintain the facilities in which the materials are currently received and stored in K- and L-Reactor facilities, the Receiving Basin for Offsite Fuels (RBOF), and 400-D Area. A future interface with the Transfer and Storage Service vendor for receipt and deinventory shipment sequencing is planned. This mission is being executed per DOE's Record of Decisions related to the

Environmental Impact Statements on and Foreign Research Reactor Fuel (DOE/EIS-0218F, February 1996) and the planned SRS Spent Nuclear Fuel Environmental Impact Statement.

The objectives of the SFS Program are to (1) reduce the threat of nuclear weapon proliferation; (2) maintain and/or reduce the risks to the public, to site employees, and to the environment from the SNF, HEU, and heavy water at acceptably low levels; (3) deinventory and stabilize current SNF and HEU receiving and storage facilities; (4) package (and treat, as necessary) the SNF, making it "road ready" for ultimate disposition in a federal repository; (5) disposition DNFSB 94-1 materials as recommended by the DNFSB; and (6) stabilize, purify, consolidate the site inventories of heavy water making it salable, usable or more safely stored pending the final disposition decisions.

2006 STATUS

A Transfer and Storage Service and required facilities will be available and begin operation by FY2002. Operation of the TSS will include receipt of all shipments of FRR, DRR and INEEL SNF after that point in time, as well as receipt of SNF beingdeinventoried from L Reactor and RBOF.

The contract for the TSS has not been awarded as of the date of this Discussion Draft, but the current expectation is that TSS receipt capacity will be such that L Reactor will be completely deinventoried in the period 2002 through 2010. RBOF deinventory will be completed by 2012. L Reactor and RBOF will begin facility stabilization activities after deinventory for turnover to the Facilities Decommissioning Division for deactivation and final disposition. Turnover will occur at the end of 2011 and 2013 respectively.

Fuel assemblies so damaged or degraded at their source reactor, in transport, or during storage that they are perceived to be a threat to health and safety, will be stabilized in an SRS canyon or other appropriate facility (outside of this program). Fuel types that will be exceedingly difficult or expensive to prepare for direct disposal will also be stabilized in one the canyons on site or in another appropriate facility.

The TSS will include characterization of the SNF per repository requirements, and packaging as necessary for a Direct Disposal approach to ultimate disposition (REF; *Technical Strategy for the Treatment, Packaging, and Disposal of Aluminum-Based Spent Nuclear Fuel*, June 1996). If, ultimately, it is determined that additional treatment (e.g., "Melt and Dilute" or "Press and Dilute") is necessary to satisfy requirements for safe disposal in an underground repository, then elements such as an additional treatment facility would be added to this Discussion Draft.

Offsite fuel receipts, conditioning, packaging and shipments to the repository will continue until 2035.

Remaining inventories of heavy water will be stored in L Reactor. The anticipated 2006 inventory of heavy water in storage is not known due to ongoing plans to sell, as possible, all current inventories above the reserve level mandated for possible missions. Anticipated 1998 decisions regarding the new tritium production source could further reduce the reserve amount. Current inventories of DANA and DuPont water will be transferred to Oak Ridge in 1998. L Reactor is currently scheduled to be deinventoried by 2010; any remaining heavy water will be sent to the end user or sold.

Inventories of highly enriched uranium will continue be stored in L Reactor until a final disposition decision is implemented.

ASSUMPTIONS

This Discussion Draft is based on the following assumptions, each having significant influence on major elements of the Discussion Draft, including timing and cost:

- FRR, DRR, and INEEL SNF assemblies are received from 1997 through 2035.
- The program will be successful in obtaining Nuclear Regulatory Commission (NRC) approval of a "direct disposal" waste form, where the SNF need to be packaged in repository-compatible canister, with no other treatment required. If NRC approval is not obtained, then an additional treatment facility will be required.
- F Canyon or H Canyon or another processing facility is available until at least 2008 to process any SNF posing a health and safety threat (i.e., no facility to disposition such fuel is planned as part of the SNF Program. See issue number 2 below.)
- DOE will elect not to blend-down and sell unirradiated highly enriched uranium (HEU) fuels, and will elect to retain at least a portion of the existing tritiated heavy water (HW) on site, resulting in a desire for co-location of these materials in order to reduce surveillance and maintenance costs (especially safeguards and security costs).
- The spent nuclear fuel storage and handling facility privatization support funding will be available to meet repayment of principal and interest.

FINAL END-STATE

The final end-state for the SFS program is that all SNF is made “road ready” and shipped to the repository (or to a near-repository interim storage facility). Current facilities associated with the SNF program will be deinventoried and stabilized to the extent necessary to allow for an extended low cost surveillance and maintenance program. A final disposition decision for these facilities has not been made at this time. SRS will continue to use existing facilities to the extent that SNF facilities may be used to cost-effectively store HEU or HW beyond the SFS mission. These facilities, with residual inventories, are the subject of subsequent Discussion Draft projects which address deactivation, decommissioning and the ultimate disposition. for such will be transferred to the programs responsible.

PROGRAM OUTPUTS

SFS Program outputs are shown below.

- SNF is in “road ready” condition; first stored in the TSF, then (no sooner than 2018) shipped to a federal repository; 30,000 assemblies; 62 metric tonnes uranium; 255 cubic meters uranium.
- SNF facilities are (K and L Reactor and RBOF) deinventoried and stabilized.
- Highly enriched uranium is prepared for blend-down.
- Heavy water is ready for sale.
- Heavy water is prepared for long-term storage.
- Site SNF is prepared for stabilization processing.

OTHER OPPORTUNITIES

An option which offers potential for significant cost-savings in the ten year period covered by this Discussion Draft is shown below.

Combine the TSS interim storage requirements with the second Glass Waste Storage Building for DWPF cannisters. These two facilities are designed to store road ready wastes destined for the federal repository. Combining the facilities may offer the potential for significant savings through elimination of duplicate costs for design, site preparation, canister handling equipment, cask handling facilities and equipment, ventilation systems, monitoring systems, and operating infrastructure (management, procedures, safety programs, etc.). An "order of magnitude" estimate of potential cost savings is $50 Million.

ISSUES AFFECTING PROGRAM PERFORMANCE

Two issues, mentioned briefly above, have potential to significantly impact the SNF Program.

- NRC approval of the direct disposal approach for aluminum-clad fuels in the federal repository is crucial for the program as presented in this Discussion Draft. However, the formal site specific EIS process of obtaining NRC approval of the direct disposal waste-form has not begun.
- The low melting temperature, corrosion potential, and high enrichment of the aluminum-clad fuels are dramatically different from the attributes of commercial spent nuclear fuels which have been addressed by the Waste Management programs at DOE and NRC over the past decade. Achieving NRC approval of direct disposal will take significant effort, both for DOE, its contractors and for the NRC. Direct disposal may also be at odds with other stakeholder expectations. The effect of failure to achieve NRC approval will be the necessity to construct and operate a treatment facility not currently included in the Discussion Draft. The design and construction cost for this facility is estimated to be approximately $100 million, with annual operating costs of $15 to $20 million. If required, operation would continue for at least thirty years, beginning about FY2005.
- DOE's Record of Decision on Foreign Research Reactor SNF includes the plan to process any damaged/degraded SNF, as necessary to eliminate unacceptable health and safety risks. This processing is to be accomplished in the SRS canyon(s). This Discussion Draft makes no provision for a facility or operation to accomplish this processing if the canyons are not available. Any risk will be slow to develop, there are options and opportunities that involve extended canyon operation, and there will be ample time to modify the program as necessary to deal with any such risk. Thus, the current Discussion Draft is considered adequate, without specific provisions to deal with this issue.

SECTION VII-6

SOLID WASTE MANAGEMENT SUMMARY

SUMMARY

The mission of Solid Waste Program at SRS is to provide exemplary, high quality and cost effective solid waste management services in support of DOE missions across the complex. This is accomplished through the safe storage, treatment and disposal of wastes generated at SRS as well as from other approved DOE and federal facilities. The Solid Waste Program's major focus involves a shift from an SRS production support role to managing large volumes of legacy waste and clean-up wastes arising from Environmental Restoration (ER) and decommissioning activities. Program emphasis in the near term is to establish the treatment, storage and disposal service capabilities necessary to reach a steady state condition, and to place SRS in a position to support DOE's changing mission in a safe and regulatory compliant manner.

SRS will implement a major cost reduction method is through waste minimization. The Waste Minimization/Pollution Prevention Management System will provide SRS the safe, effective, and environmentally responsible Waste Minimization Program strategy to implement specific waste reduction techniques based on current and projected information on waste generation, waste characterization, and ultimate waste disposal costs.

While the primary programmatic challenges lie within the mixed and transuranic waste areas, continuous optimization of the hazardous, low level and municipal waste programs are occurring as well. Budget reductions provide challenges which make innovative and cost effective waste management solutions a necessity. Increasingly, this involves partnering with other DOE sites and private industry to share capabilities and experiences to assist in the reduction of DOE costs. Satisfying the operational, safety, and regulatory needs within expected budgetary constraints will require a significant departure from past waste management practices. Consequently, stakeholder involvement at all levels will be necessary to help develop the best solutions to these complex issues.

Solid Waste Facilities

The Solid Waste Program facilities are described below.

Consolidated Incineration Facility (CIF) is a treatment facility for mixed waste and low level waste. The CIF started operations in FY1997.

Solid Waste Disposal Facility (E-Area Vaults, Engineered Trenches) provides final disposal areas for low level radioactive waste. Storage areas are provided for radioactive contaminated large equipment and long lived low level waste awaiting disposition.

TRU Waste Storage Pads provide RCRA-permitted storage for TRU Waste and mixed TRU waste awaiting final treatment and/or disposal at WIPP.

Mixed Waste Storage Facilities provide RCRA-permitted storage for mixed waste awaiting treatment and/or disposal.

Hazardous Waste Storage Facilities provide RCRA-permitted storage for hazardous waste awaiting transportation to offsite commercial facilities for treatment and disposal.

Interim Sanitary Landfill was used for onsite disposal of sanitary waste prior to using an offsite hauler and disposal facility. The ISL is scheduled to undergo final closure in FY1998.

Path Forward/Site-Specific Strategies

Achievement of End State

Achievement of the end state for Solid Waste Program waste streams is a two step process. First, is achieving steady state operations, i.e., when all legacy waste has been treated and disposed of, and all newly generated wastes are treated and disposed of within one year of being declared waste. Second, the final end state will be achieved when no further waste is being generated at SRS and all waste in the custody of Solid Waste Program has been treated and disposed. Schedules for steady state operation and final end state for each waste stream can be found in the Project Baseline Summaries (PBSs).

Key Assumptions

This Discussion Draft for Solid Waste is based on the following key assumptions.

- The Consolidated Incineration Facility will continue radioactive operations in FY1997 and remain fully operational during FY1998 and beyond.
- Treatment technologies will be developed, and treatment/disposal facilities will be available to meet all commitments in the Site Treatment Plan.
- WIPP will open and be available to receive TRU waste shipments in FY1999 and that all SRS TRU waste can be shipped to the Waste Isolation Pilot Plant (WIPP).

Intersite/Interstate Interactions

Activities involving other DOE sites or shipment through other states are shown below.

- Shipment of TRU waste to WIPP in New Mexico
- Shipment to the Offsite Low Level Waste Processing Facility for volume reduction (This waste will be returned to SRS for disposal.)
- Shipment to various offsite commercial facilities of hazardous waste for treatment and disposal.
- Shipment to offsite commercial facilities (as yet not identified) or mixed waste for treatment and disposal.

Stakeholder Involvement

The Department of Energy and the Solid Waste Program are committed to providing stakeholders with meaningful opportunities for involvement in the decision-making process which determines the program. With the current environment of change, it is critically important that this program establish a stakeholder communication and involvement program which provides the support for the program to carry out its mission. The following strategies have been identified as the primary means for addressing stakeholder involvement:

- Ensure that stakeholders understand and value the Solid Waste Program mission, objectives, performance, and contributions to the DOE and SRS and that they put the risks associated with this program in perspective.
- Ensure that the Solid Waste Program understands and values stakeholders expectations.
- Actively involve stakeholders in improvement initiatives where relevant and appropriate.
- Be recognized by stakeholders as being honest, open, credible, and responsive.
- Be recognized by stakeholders as a center of excellence at both SRS and within the DOE complex.

Other Opportunities

Complex-Wide EM Integration

A DOE-directed, contractor-led initiative is underway to identify opportunities for complex-wide integration of capabilities to support cost effective solutions to dealing with the treatment, storage and disposal of DOE Complex waste streams. This effort will hopefully provide meaningful input to the process for the Accelerating Cleanup: Focus on 2006 Discussion Draft by reducing costs and shortening the schedule for final disposition of these DOE wastes. Using a systems engineering approach, this process has built on and augment previous DOE analyses and data bases. The effort will focus on consolidation of complex capabilities, expand existing transportation capability and share experience and knowledge to provide integrated solutions for the safe disposition of all DOE wastes in the most timely and cost-effective manner.

This effort will require stakeholder involvement at all levels to help access the opportunities, define variables and identify those actions that make sense for complex integration.

SECTION VII-7

FACILITIES DEACTIVATION AND DECOMMISSIONING SUMMARY

The Facilities Deactivation And Decommissioning (D&D) Program is tasked with assisting operating organizations with transition of facilities to a shutdown state, and assuming responsibility for closed SRS facilities. Program assistance provided to operating organizations includes facility shutdown and stabilization planning, and deactivation planning. Once the facility has been transferred to the program, the facility will be maintained in a safe surveillance and maintenance mode. During this surveillance and maintenance mode, detailed deactivation planning will take place. Implementation of the deactivation plan will drive the facility surveillance and maintenance costs and attendant risks (e.g., environmental, public health and safety) to the lowest levels consistent with facility authorization bases. The program will also prepare and execute detailed D&D plans. These activities are contingent upon adequate funding.

Facilities currently under the program include the 247-F Naval Fuels Facility, which will be placed in a deactivated (low surveillance and maintenance cost) state by mid FY97, the closed P, C, and R Reactor facilities, and the closed M Area fuel and target fabrication facilities. The program is responsible for the D&D of the Heavy Water Components Test Reactor, for the RCRA clean closure of the M-Area plating line waste tanks (using vitrification technology to stabilize the plating line mixed waste), and for operation of the C-Area Waste Minimization Facility, a decon facility designed to reduce disposal costs of materials by decontamination and subsequent reuse or disposal as sanitary waste.

2006 END STATE ACCOMPLISHMENTS TO DATE

To date, the 247-F Naval Fuels facility has been deactivated and is now in a low cost surveillance and maintenance state. None of the other program facilities have been deactivated, although costs have been significantly reduced for P and R reactors through closure of the areas to permanent occupation.

2006 END STATE FOR THE LOW FUNDING CASE AND REMAINING ACTIONS

For the Facilities Program, the FY2006 Low Funding Case end state is primarily surveillance and maintenance of P, C, and R Reactors, and the M Area fuel and target fabrication facilities, at their current level of spending (pre-deactivation costs), surveillance and maintenance of the 247-F Naval Fuels facility at post-deactivation levels of spending, and operation of the C-Area Waste Minimization Facility (decon support facility) with approximately 60% of costs being borne through work for others. D&D of the Heavy Water Components Test Reactor (HWCTR) and clean closure of the M-Area waste storage tanks (vitrification of plating linesludges) will be completed by FY2006.

Assumptions for Low Funding Case include removal of heavy water from the P and C Reactor storage tanks in FY98 or FY99, resulting in a significant savings in surveillance and maintenance costs. No D&D funding for any facility, other than HWCTR, is anticipated before 2006.

2006 END STATE FOR HIGH FUNDING CASE AND REMAINING ACTIONS

Incremental activities for High Funding Case include the deactivation of the R Reactor Disassembly Basin. The High Funding Case end state includes surveillance and maintenance of P, C, and R Reactors, and the M-Area fuel and target fabrication facilities, at current levels of spending. Also, the High Funding Case includes surveillance and maintenance of the 247-F Naval Fuels facility at post-deactivation levels of spending, and operation of the C-Area Waste Minimization Facility (decon support facility) with approximately 60% of costs being borne through work for others. D&D of the Heavy Water Components Test Reactor (HWCTR) and clean closure of the M-Area waste storage tanks (vitrification of plating line sludges) will be completed by FY2006.

Assumptions for High Funding Case include removal of heavy water from the P and C Reactor storage tanks in FY98 or FY99, resulting in a significant savings in surveillance and maintenance costs. In addition, it is assumed that the R-Area Disassembly Basin deactivation will be funded in the decade, per DOE-SR directive. No D&D funding for any facility, other than HWCTR, is anticipated in the decade. All other deactivation funding will be postponed beyond FY06.

MISSION BEYOND 2006

The Facilities Program will assume control of K and L Reactors under either case in FY07 and FY09, respectively , and the Receiving Basin for Offsite Fuel (RBOF) in FY2012. Deactivation of P, C, K, L, and R (remainder) Reactors, M Area, D Area, and H Area and F Area chemical processing facilities will be postponed until after FY06 due to budget shortfalls predicted by the current budget constraints. For the facilities currently in the facility program, surveillance and maintenance cost profile shown above will remain constant (adjusted for inflation) until such time as deactivation is funded. Without reducing the residual radiological, chemical, and industrial hazards associated with these facilities, the surveillance and maintenance requirements will result in significant yearly expenses. Deactivation of these facilities would reduce the life cycle costs of these facilities by as much as 80%.

ACHIEVEMENT OF END STATE

The primary difference between the Facilities Program either case plans lies with facility deactivation. In Low Funding Case, no deactivation is funded, with P, C, and R Reactor surveillance and maintenance spending held constant at pre-deactivation levels (adjusted for inflation). The High Funding Case requests additional funding for R Reactor Disassembly Basin deactivation, with a minimal reduction in reactor surveillance and maintenance (the facility only being partially deactivated). Low Funding Case extends higher levels of surveillance and maintenance costs beyond the year 2006. High Funding Case initiates a small amount of surveillance and maintenance savings within the decade, mostly as a result of risk reduction.

BENEFITS OF HIGH BUDGET CASE

The High Funding Case initiates a small amount of savings on life cycle costs within the decade. Deactivation of the R Reactor Basin would eliminate the risk of groundwater contamination by egress of basin waster into the subsurface water table around R Reactor.

MORTGAGE REDUCTION

The primary difference between the facilities program the Low Funding Case and the High Funding Case lies with facility deactivation. In the Low Funding Case, no deactivation is funded with P, C, and R Reactor, and M Area, surveillance and maintenance spending held constant at pre-deactivation levels (adjusted for inflation). High Funding Case requests additional funding for R Reactor disassembly basin deactivation, with minimal surveillance and maintenance cost reduction. The Low Funding Case extends higher levels of surveillance and maintenance costs beyond 2006, i.e., no deactivation activities will be funded at any time during the life cycle of the facilities currently within the facilities program. High Funding Case is the only program case that accelerates facilities towards the desired end state. Approximately $8 million of the facilities program budget request for High Funding Case will be applied to end state acceleration within the decade.

RISK REDUCTION

The facilities under the facilities program are currently being maintained in a safe manner consistent with safety authorization bases. Initiation of deactivation activities in the High Funding Case will yield a substantial reduction in risk of groundwater contamination. The largest risk reduction activity will be the draining of the R Reactor Disassembly Basin. This basins currently contains approximately 6.1 million gallons of contaminated water, unknown quantities of sludge and dirt, and activated scrap materials. Although not an immediate problem, these basins do pose a hazard for groundwater contamination. Elimination of the basin water would eliminate the costs associated with monitoring the risk by eliminating the risk itself.

SECTION VII-8

INFRASTRUCTURE PROGRAM SUMMARY

The Infrastructure Program integrates the capital needs for all activities that are common across the site, as well as those that are not associated with a specific activity or mission. This ensures that vital interests such as bridges, roads, sanitary disposal facilities, computing architecture and administrative facilities that are necessary for, but not directly supporting SRS missions, remain available to the site population. The level and content of such support is decided by the site missions programs through an integrated site priority list.

Additionally, the Infrastructure Program provides direct operational support for the DOE and capital project support. DOE support is present in transportation services, procurement assistance, document reproduction, building rents and maintenance, computer and telephone system support, waste hauling, janitorial support and other such items. Operational support for capital projects includes the up front monies necessary to develop Line Item Projects, Other Project Costs (OPC) for active line items and funding for general plant and small capital equipment projects.

PROGRAM MISSION AND OBJECTIVES

The Infrastructure Program mission is: (1) maintain the general areas of the SRS in such a state that will support current missions; (2) provide a convenient point to address site-wide capital needs for common facilities and architecture not attributable to a single mission, but that are necessary to retain the viability of the SRS for current and future missions; (3) provide for future use planning to address SRS general capital needs, and; (4) provide operational support for DOE needs that are general and administrative in nature and not directly related to mission oversight.

The guiding principles of the Infrastructure Program are to manage capital programs to adequately support mission activities as requested and funded by the missions themselves by: protecting the worker health and safety during the execution of these projects; creating a collaborative relationship between DOE, its stakeholders and primary contractor; focusing the management approach based on cost and risk reduction; and strengthening management and financial control over activities within the infrastructure sphere.

ASSUMPTIONS

Cost and schedule can be significantly influenced by the assumptions listed below:

- For the foreseeable future, the EM Program Office will retain its position as Landlord of the SRS. Currently, there is no credible combination of mission changes foreseeable that will change funding or activity levels at the site such that EM will become the minority stakeholder within the confines of this Discussion Draft.
- Funding requirements are not adequate to meet the SRS's capital needs. If funding remains at these levels, the Infrastructure Program will not be able to meet site needs, thereby requiring increased expenditures by program missions in the long run to restore rather than maintain SRS's general use facilities. These facility needs will not receive funding, as they cannot compete with program missions in the current site prioritization scheme which is based on risk.

- Line Item development will be necessary over the FY 1998 and FY 1999 periods. There is currently no funding provided to develop the necessary initiating conceptual and pre-conceptual documents for FY 1999 and 2000 start line items until the year 2000. Generally line items require a two- to three-yearleadtime for this type of development.

MISSION BEYOND 2006

As long as program missions continue, the Infrastructure Program will continue to be necessary. As is currently the practice, as areas are abandoned through missions reaching end state, the Infrastructure support for that mission will be re-evaluated and adjusted to mission requirements.

Section VIII

Operations/Field Office Baseline Summary

O. - Operations/Field Office Baseline Summary

FILL IN SHADED AREAS ONLY

O.1. Operations/Field Office: Savannah River Site (SR00)

FY 1998 Operations/Field Office Full Case Compliance: 1,278,300

SUPPORT COSTS BREAKOUT

O.2. M&O/M&I Functional Support Cost Reporting

	1997-2006 Total	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
General Support	1,416,600	$195,800	$165,300	$154,600	$128,700	$128,700	$128,700	$128,700	$128,700	$128,700	$128,700
Mission Support	3,664,838	478,402	423,989	402,541	336,115	336,741	337,410	337,410	337,410	337,410	337,410
Mission Direct (non-construction)	6,677,667	519,222	553,073	624,785	709,627	710,790	712,034	712,034	712,034	712,034	712,034
Construction Direct	1,541,000	182,500	138,700	144,600	153,600	153,600	153,600	153,600	153,600	153,600	153,600
Total	13,300,105	1,375,924	1,281,062	1,326,526	1,328,042	1,329,831	1,331,744	1,331,744	1,331,744	1,331,744	1,331,744

O.3. EM Functional Support Cost Reporting

	1997-2006 Total	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
General Support	0										
Mission Support	0										
Mission Direct (non-construction)	0										
Construction Direct	0										
Total	0	0	0	0	0	0	0	0	0	0	0

FTEs

O.4.a. Operations/Field Office Federal FTEs at Year End

	1997-2006 Total	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Federal FTEs	4,696	527	499	471	457	457	457	457	457	457	457

O.4.b. Operations/Field Office and Major Site M&O/M&I FTEs at Year End (excluding subcontractors)

	Major Site	1997-2006 Total	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
M&O/M&I FTEs		0										
		0										
		0										
		0										
		0										
		0										
		0										
		0										
	All Others	0										
	Operations/Field Office Total	0	0	0	0	0	0	0	0	0	0	0

O.5. Environmental Management Contracting Breakdown

			1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
1A	Site Contractor/Team			0	0	0	0					
1B	Subcontracts		0	165,828	173,192	177,868	182,670	187,603	195,931	201,221	206,654	212,234
		Fixed Price - Competitive		162,511	169,728	174,311	179,017	183,851	192,012	197,197	202,521	207,989
		Fixed Price - Negotiated										
		Cost Plus Fixed Fee		3,317	3,464	3,557	3,653	3,752	3,919	4,024	4,133	4,245
		Cost Plus Incentive Fee										
		Other										
2A	Other Direct Prime Contractors											
2B	Subcontracts		115,795	96,199	103,839	106,636	109,508	112,458	93,515	96,032	98,617	101,272
		Fixed Price - Competitive										
		Fixed Price - Negotiated										
		Cost Plus Fixed Fee										
		Cost Plus Incentive Fee	48,000	51,292	54,000	55,458	56,955	58,493	38,100	39,129	40,185	41,270
		Other	67,795	44,907	49,839	51,178	52,553	53,965	55,415	56,903	58,432	60,002
3	Privatization Projects											
4	Federal Operations		44,539	45,187	45,171	44,943	45,872	46,821	47,790	48,782	49,797	50,834
		Salary	38,520	36,581	35,185	34,850	35,550	36,265	36,994	37,734	38,489	39,262
		Other	6,019	8,606	9,986	10,093	10,322	10,556	10,796	11,048	11,308	11,572
	Total		160,334	307,214	322,202	329,447	338,050	346,882	337,236	346,035	355,068	364,340

EM Contracting Narrative:

1997 EM Safety and Health Performance Indicator Data Report

	Target	Cumulative Actual	1st Quarter Actual	2nd Quarter Actual	3rd Quarter Actual	4th Quarter Actual
O.6. Safety and Health Indicator #1 - Total Recordable Case Rate						
Ops Office annual TRC goal	<0.670					
1.1 Enter total number of recordable injury cases (for all contractors and subcontractors)						
1.2 Enter total number of above cases resulting in a fatality						
1.3 Enter total person-hours worked (for all contractors and subcontractors)						
1.4 Total number of recordable injury cases per 200,000 hours worked (TRC) =						
O.7. Safety and Health Indicator #2 - Lost Workday Case Rate						
Ops Office annual Lost Workday Case Rate goal	<0.225					
2.1 Enter total number of lost workday cases this quarter (for all contractors and subcontractors)						
2.2 Enter total person-hours worked this quarter						
2.3 Number of lost workday cases per 200,000 hours worked (LWC) =						
O.8. Safety and Health Indicator #3 - Procedure Violations and Deficiencies						
Ops Office annual goal						
3.1 Enter total number of procedure deficiencies and violations this quarter						
3.2 Enter total person-hours worked this quarter (same total from step 1.3)						
3.3 Procedure violations per 200,000 person-hours worked						
O.9. Safety and Health Indicator #4 - Corrective Action Status						
Ops Office annual goal						
4.1 Enter total number of open corrective actions which are not overdue						
4.2 Enter total number of open corrective actions						
4.3 Corrective action status ratio (percent)						

O.10. Science and Technology Development

O.10.1. Technology Activities Summary

Waste Type/ Problem Area	Site	PBS Project Name	Science/Technology Activity	Benefit Code(s)	Other Applicable Site(s)

O.10.2. Science and Technology Needs Summary

Waste Type/ Problem Area	Site	PBS Project Name	Description of Science/Technology Need	Time Frame	Benefit Code(s)	Reference & Need Number

O.10.3. Science and Technology Development Cost Savings

Waste Type/ Problem Area	Site	PBS Project Name	Science/Technology	Savings ($)	Confidence	Source/Reference

O.10.4. Science and Technology Development Narrative:

O.10.1 Science and Technology Activities Summary

Waste/Type Problem Area	Site	PBS Project Name	Science/Technology Activity	Benefit Code(s)	Other Applicable Site(s)
ENVIRONMENTAL RESTORATION					
G&S	SARS	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05 SC, ER06-UTR	In situ barrier performance monitoring system (SR-3014) (TTP#s AL27SS21, AL27SS27, SR17SS22, PE17SS22)	CS	RL, AL, OR
G&S	SARS	ER02-FMB	Hydrogeological Control/Containment Technologies (SR-3007) (TTP#'s PE17SS21, SR17SS21,SF17SS21, AL27SS21, SR16LF22, ID77SS21)	RR	
G&S	SARS	ER06-UTR	Enhanced DNAPL removal (SR-3008) (TTP#'s SR17SS31, SF27SS31, SR17SS21, SR17C221) (ADS#'s SR0516AA)	RR,CS	OE, OK
G&S	SARS	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05 SC, ER06-UTR	In-Situ Plasma Arc Vitrification (SR-3004) (TTP#'s SR16LF52) (ADS#'s SR0701AA)	RR,CS	ID, RL, OR
G&S	SARS	ER02-FMB	In-Situ Grouting of underground solvent containers (SR-3005) (TTP#'s ID77SS43	RR,CS	ID
G&S	SARS	ER06-UTR	Intrinsic Root Zone Remediation of Chlorinated Solvents (TTP#'s ME07SS32, RL37SS31,ID77SS31	RR,CS	
G&S	SARS	ER01-FPS	Passively Induced Flow Iron Treatment System (SR-3007) (ADS#'s SR0517AA)	RR,CS	OR, OK
G&S	SARS	ER02-FMB	Funnel & Gate Technology (SR-3007) (TTP#'s RF17SS56, SR17SS51)	RR,CS	RF, OK, CH
G&S	SARS	ER02-FMB, ER06-UTR	Intrinsic Remediation of metals and radionuclides as a cleanup method of contaminated groundwater (SR-3009) (TTP#'s CH17SS51) (ADS#'s SR0511AA	RR,CS	
G&S	SARS	ER01-FPS, ER02-FMB	In well vapor stripping (SR-3010) (TTP#'s OR17SS31) (ADS#'s SR0516AA	RR,CS	OR, OK
G&S	SARS	ER02-FMB, ER06-UTR	Tritium treatment technologies (SR-3006) (TTP#'s SR16PL13) (ADS#'s SR0515AA	RR,CS	OR, RL
FACILITIES DECONTAMINATION & DECOMMISSIONING					

O.10.1 Science and Technology Activities Summary

Waste/Type Problem Area	Site	PBS Project Name	Science/Technology Activity	Benefit Code(s)	Other Applicable Site(s)
D&D	SRS	SR-ER09 - HWCTR	Metals Recycle SR14DD51 - Stainless Steel Beneficial Reuse Demonstration	CS, ET	SR,ID, OR, RF
D&D	SRS	SR-ER09 - HWCTR	Kelly Decon Machine - Decontamination	CS	SR, HN, MD, ID
D&D	SRS	SR-ER09 - HWCTR	LTC Vacuum Blaster (grit/shot blasting) - Decontamination Technology	CS	SR, HN, MD, ID
D&D	SRS	SR-ER09 - HWCTR	Alpheus 250 pelletizer (CO2 blasting) - Decontamination Technology	CS, RR	SR, HN, MD, ID
D&D	SRS	SR-ER09 - HWCTR	Power Products Plastic Decon Machine - Decontamination Technology	CS	SR, HN, MD, ID
D&D	SRS	SR-ER09 - HWCTR	MAC 21 HEPA Vacuum - Decontamination Technology	RR	SR, HN, MD, ID
D&D	SRS	SR-ER09 - HWCTR	Stainless Steel Modular Decon Hut - Decontamination Technology	CS, RR	SR, HN, MD, ID, RF
D&D	SRS	SR-FA10 - R Deactivation	Niton XL Spectrum Lead Analyzer - Characterization Technology	CS, ET	SR, HN, MD, ID, RF, OR
HIGH LEVEL WASTE					
HLW	SR	SR-HL03, Waste Removal	Develop methods to remove tank heels (sludge heel, hardened sludge, zeolite, sand, reel tapes, etc.) (ADS: SR0314-LI)	ET, RR	RL, OR
HLW	SR	SR-HL03, Waste Removal	Demonstrate alternative salt removal techniques, such as modified density gradient, steam circulate jets, water jets, agitators, etc. for salt dissolution (ADS: SR0314-LI, TTP: RL36WT51)	CS	RL, OR
HLW	SR	SR-HL03, Waste Removal	Develop enhanced method for retrieval of waste from annulus space	ET	RL
HLW	SR	SR-HL03, Waste Removal	Develop remote size reduction of deposits in waste tanks (ADS: SR0314-LI, TTP: RL36WT51-A)	ET	RL, OR, ID

O.10.1 Science and Technology Activities Summary

Waste/Type Problem Area	Site	PBS Project Name	Science/Technology Activity	Benefit Code(s)	Other Applicable Site(s)
HLW	SR	SR-HL05, Vitrification	Develop DWPF analytical methods to improve attainment (ADS: SR0022-AA, TTP: SR16WT31)	CS	RL, OR
HLW	SR	SR-HL05, Vitrification	TFA will cofund development of alternative pour spout concepts and test in FY99. (Florida International University Grant)	ET, RR	RL, OR
HLW	SR	SR-HL05, Vitrification	A small development program will develop remote level measurement systems in FY98, 99, 00.	ET	RL, OR
SPENT NUCLEAR FUEL					
SNF	SRS	Basin/Wet Storage	Basin corrosion surveillance program (WBS# 1.22.02)	ET	INEL, Hanford,WVNS
		*All	Basin water chemistry effects on SNF (WBS# 1.22.02)	ET	
			Life prediction of SNF in basin storage (WBS# 1.22.02)	ET	
			Potential for Microbiological Influenced Corrosion of SNF (WBS# 1.22.02)	RR	
			On-line water chemistry probes (WBS# 1.2202/1.22.03)	CS	
			Develop acceptance criteria for FRR (WBS# 1.22.03)	ET	
			Development of canning technology (WBS# 1.22.02)	ET	
			On-line corrosion monitoring probes (unfunded in FY97)	CS	
			Microbial activity probes (unfunded in FY97)	ET	

* Wet storage technology development is applicable to all wet storage facilities currently in use: K-Basin (SR-SF01), L-Basin (SR-SF02), RBOF (SR-SF03)

O.10.1 Science and Technology Activities Summary

Waste/Type Problem Area	Site	PBS Project Name	Science/Technology Activity	Benefit Code(s)	Other Applicable Site(s)
SNF	SRS	Dry Storage (all)	Drying and storage criteria (WBS# 1.22.04)	ET	INEL, Hanford
		Alternate Tech. Develop.	(Temperature, humidity, radiation effects on SNF degradation)		
		(PBS#SR-SF-06)	Instrumentation to evaluate SNF performance (unfunded in FY97)	ET	
			Validation of dry storage criteria (unfunded in FY97)	ET	
		Transfer & Storage Service	Characterization requirements of SNF (unfunded in FY97)	ET	
		(PBS#SR-SF-09)	Characterization techniques development (unfunded in FY97)	ET	
			Characterization database development (unfunded in FY97)	ET	
SNF	SRS	Repository Storage (all)	Direct/co-disposal technology development (1.22.04)	ET	INEL, Hanford
		Alternate Tech. Develop.	Dilution technology development (1.22.04)	ET	
		(PBS#SR-SF-06)	Facility functional requirements (1.22.04)	ET	
		Transfer & Storage Service	Waste form feasibility assessment (1.22.04)	ET	
		(PBS#SR-SF-09)	Waste form standardization qualification test protocol dev. (1.22.04)	ET	
			Characterization database and techniques development (1.22.04)	ET	
			Advanced treatments technology development (unfunded in FY97)	ET	
			•Dissolve/vitrification process		
			•Electrometallurgical process		
			•Plasma arc process		

O.10.1 Science and Technology Activities Summary

Waste/Type Problem Area	Site	PBS Project Name	Science/Technology Activity	Benefit Code(s)	Other Applicable Site(s)
SOLID WASTE					
TRU	LANL, INEL	Transuranic Waste (PBS # SR-SW-02)	Technologies to increase Transuranic Waste Transportation Curie, Size and Weight Limits** (SRS Need SR-1001) TTP # AL16MW51 & ID06MW51	ET, CS	MD, RL,SRS
MLLW	LANL, INEL, Oakland,	Mixed Waste (PBS # SR-SW-03)	Characterization of radiological and hazardous constituents and concentrations in mixed waste streams** (SRS Need SR-1003) TTP # ID74MW77, OK26MW51, ID06MW51, AL16MW51	CS, RR, ET	SRS
MLLW	ORNL, SRS, Argonne, Hanford	Consolidated Incinerator Facility (PBS # SR-SW-01)	Continuous Emissions Monitors for Incinerator Stacks** (SRS Need SR-1004) TTP # CH23MW51, OR16MW74, RL36MW51, & SR17C231	RR, CS	INEL
MLLW	ORNL, SRS, Argonne, INEL	Mixed Waste (PBS # SR-SW-03)	Processes and equipment to stabilize radioactive elemental mercury generated at DWPF** (SRS Need SR-1006) TTP # CH36MW63 & OR16MW61, & SR16MW62	CS, RR, ET	RL
TRU	LANL, INEL,SRS	Transuranic Waste (PBS # SR-SW-02)	Treatment of TRU Waste for Destruction of Organic Constituents ** (SRS Need SR-1007 TTP # AL16MW51 & ID06MW51, SR16MW51	ET, RR	RL
MLLW	LANL, INEL	Mixed Low Level Waste (PBS # SR-SW-03)	Performance Assessments Conservatisms Reduction Models** (SRS Need SR-1008) TTP # AL34MW75 & ID06MW76	CS	OR, RL, Nevada, SRS
TRU	SRS	Transuranic Waste (PBS # SR-SW-02)	Drum Venting System, venting rdiolytic gas installing a filter vent in the TRU drums. EM-30 funded.**	ET, RR	INEL, LANL, RL, SQS***

** Science/Technology Activity summarizes the MWFA identified TTPs that may partially/completely support the SRS Solid Waste TDNeeds Identified in Table 2.

*** SQS--Small Quantity Sites.

O.10.2 Science and Technology Needs Summary

Waste/Type Problem Area	Site	PBS Project Name	Description of Science/Technology Need	Time Frame	Benefit Code(s)	Reference & Need Number
ENVIRONMENTAL RESTORATION						
G&S	SARS	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06-UTR	Demonstrate field effectiveness of in-situ stabilization systems for radiological contamination, using alternative grout formations in moist sandy clay soils	1-3 Years	RR, CS	SR-3002
G&S	SARS	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06-UTR	Long term closure cover system configuration for low level and radiological waste layer for sandy clay soils in a humid climate	1-3 Years	RR, CS	SR-3003
G&S	SARS	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06-UTR	Demonstrate cost-effectiveness/superior performance of in-situ and ex-situ vitrification when compared to conventional remediation technologies of both radiologically and radiological/chemically contaminated soils at the Savannah River Site	1-3 Years	RR, CS	SR-3004
G&S	SARS	ER02-FMB	In-situ grouting of underground tanks formerly used for the storage of radioactive solvents	1-3 Years	RR, CS	SR-3005
G&S	SARS	ER02-FMB, ER06-UTR	Tritium hydrogeological control and/or treatment technologies	1-3 Years	RR	SR-3006
G&S	SARS	ER02-FMB, ER06-UTR	In-situ and ex-situ groundwater treatment technologies for radionuclides, VOCs and hazardous constituents in unconsolidated subsurface sediments; i.e., sand/clayey soils	1-3 Years	RR, CS	SR-3007
G&S	SARS	ER06-UTR	Dense Non aqueous Phase Liquids (DNAPL) remediation technologies in deep unconsolidated subsurface sediments; i.e., sandy/clayey soils	1-3 Years	RR, CS	SR-3008

O.10.2 Science and Technology Needs Summary

Waste/Type Problem Area	Site	PBS Project Name	Description of Science/Technology Need	Time Frame	Benefit Code(s)	Reference & Need Number
G&S	SARS	ER02-FMB, ER06-UTR	Develop in-situ barrier technologies for immobilization, containment and treatment of VOCs, metals and/or radionuclides in unconsolidated subsurface sediments; i.e., sandy/clayey soils	1-3 Years	RR, CS	SR-3009
G&S	SARS	ER02-FMB, ER06-UTR	In-situ or ex-situ groundwater interim removal action/containment technologies for radionuclides, VOCs, and metals in unconsolidated subsurface sediments; i.e., sandy/clayey soil	1-3 Years	RR	SR-3010
Other	SARS	ER06-UTR	Characterization technologies for locating Dense Non aqueous Phase Liquids (DNAPLs) in deep unconsolidated subsurface sediments; i.e., sandy/clayey soils	1-3 Years	RR, CS	SR-3011
Other	SARS	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06-UTR	In-situ (direct push) characterization technologies to provide real time analysis of VOCs, metals, and radionuclides; real time measurement of hydraulic conductivity	1-3 Years	CS	SR-3012
Other	SARS	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06-UTR	Sample collection and well drilling technology that eliminates aqueous or non-aqueous Investigative Derived Waste (IDW) and control of contaminant migration along well casings	1-3 Years	CS	SR-3013
Other	SARS	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06-UTR	Performance monitoring systems for in-situ stabilization and barrier technologies to monitor subsurface contamination and fate and transport of remedial activities in moist sandy clayey soils	1-3 Years	CS	SR-3014

O.10.2 Science and Technology Needs Summary

Waste/Type Problem Area	Site	PBS Project Name	Description of Science/Technology Need	Time Frame	Benefit Code(s)	Reference & Need Number
Other	SARS	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06-UTR	Characterization of contaminant migration along seismic fault lines	1-3 Years	CS	SR-3015
FACILITIES DECONTAMINATION & DECOMMISSIONING						
D&D	SRS	SR-ER09 - HWCTR	Dismantlement of large and/or complex equipment and structures - Improved dismantlement technologies are necessary to demolish concrete structures quickly and	4-10 years	CS	SR-4001
D&D	SRS	SR-ER09 - HWCTR	Characterization of contaminated surfaces - Quick and easy field characterization of contaminated concrete, metal structures, and process equipment.	1-3 years	CS	SR-4002
D&D	SRS	SR-ER09 - HWCTR	Material recycle - Innovative technologies are needed to treat and beneficially reuse salvageable process equipment, depleted uranium, lead, stainless steel, carbon steel, and concrete.	4-10 years	CS	SR-4003
D&D	SRS	SR-ER09 - HWCTR	Decontamination of contaminated concrete - Ability to decontaminate concrete surfaces of various configurations and in inaccessible areas (i.e., decon to remove transuranics, actinides, fission products, and tritium).	1-3 years (w/o tritium) 4-10 years (w tritium)	CS	SR-4004
D&D	SRS	SR-ER09 - HWCTR	Characterization of inaccessible areas - Improved accuracy and non-destructive techniques are needed for characterizing process piping, drain lines, wall cavities, and ventilation ducts.	1-3 years	CS	SR-4005
D&D	SRS	SR-ER09 - HWCTR	Asbestos treatment - In-situ treatment of transite paneling to allow facility reuse without added occupancy restrictions.	1-3 years	CS	SR-4006

O.10.2 Science and Technology Needs Summary

Waste/Type Problem Area	Site	PBS Project Name	Description of Science/Technology Need	Time Frame	Benefit Code(s)	Reference & Need Number
D&D	SRS	SR-ER09 - HWCTR	Characterization of volumetrically contaminated material - Determination of cross-sectional profile of contamination in concrete and metal.	1-3 years	CS	SR-4007
D&D	SRS	SR-ER09 - HWCTR	Dismantlement of concrete-encased piping - Efficient removal of embedded piping while avoiding the spread of contamination.	1-3 years	CS	SR-4008
D&D	SRS	SR-ER09 - HWCTR	Improved exhaust treatment systems - Use of a reusable, off-the-shelf ventilation system that meets Industrial Hygiene needs.	1-3 years	CS	SR-4009
D&D	SRS	SR-ER09 - HWCTR	Characterization data management - Relational database that tracks all forms of characterization data, interfaces with other project documentation, and generates reports.	1-3 years	CS	SR-4010
HIGH LEVEL WASTE						
HLW	SR	SR-HL03, Waste Removal	Tank Heel Removal	1-3 years	ET, RR	SR-2001
HLW	SR	SR-HL03, Waste Removal	Alternative Salt Removal Techniques	1-3 years	CS	SR-2002
HLW	SR	SR-HL03, Waste Removal	Enhanced Chemical Cleaning Methods for High Level Waste Tank Closure	1-3 years	RR	SR-2009
HLW	SR	SR-HL01, H-Tank Farm, SR-HL02, F-Tank Farm	Methods to Unplug Waste Transfer Lines	1-3 years	ET	SR-2004
HLW	SR	SR-HL01, H-Tank Farm, SR-HL02, F-Tank Farm	Passive Waste Tank Ventilators	1-3 years	ET	SR-2013
HLW	SR	SR-HL01, H-Tank Farm, SR-HL02, F-Tank Farm	In-situ Methods for Characterization of Tank Wastes	4-10 years	ET, CS	SR-2003

O.10.2 Science and Technology Needs Summary

Waste/Type Problem Area	Site	PBS Project Name	Description of Science/Technology Need	Time Frame	Benefit Code(s)	Reference & Need Number
HLW	SR	SR-HL03, Waste Removal	Annulus Space Cleaning	4-10 years	ET	SR-2005
HLW	SR	SR-HL01, H-Tank Farm, SR-HL02, F-Tank Farm	In-Tank Corrosion Probe Development	1-3 years	CS, RR	SR-2015
HLW	SR	SR-HL03, Waste Removal	Solids Size Reduction in Waste Tanks	1-3 years	CS	SR-2010
HLW	SR	SR-HL01, H-Tank Farm, SR-HL02, F-Tank Farm	Demonstrate Alternative Filtration Technology to Replace HEPA Filters	1-3 years	CS	SR-2017
HLW	SR	SR-HL05, Vitrification	Provide Alternative processing and/or Concentration Methods for DWPF Recycle Aqueous Streams	4-10 years	RR	SR-2007
HLW	SR	SR-HL05, Vitrification	Optimize Waste Loading for DWPF Glass	1-3 years	CS	SR-2011
HLW	SR	SR-HL05, Vitrification	Develop Lower cost Hight Cajpacity Melters for DWPF Which are Consistent with Remote Operability Requirements	4-10 years	CS	SR-2012
HLW	SR	SR-HL05, Vitrification	Develop DWPF Analytical Methods to Improve Attainment	1-3 years	CS	SR-2014
HLW	SR	SR-HL05, Vitrification	Alternatives for DWPF Melter Feed REDOX Adjustments	1-3 years	RR	SR-2019
HLW	SR	SR-HL05, Vitrification	Enhance equipment design and operability of the DWPF Melter System;	1-3 years	RR	SR-2021
HLW	SR	SR-HL05, Vitrification	Enhance equipment design and operability of the DWPF Melter System; Characterize causes of pour spout pluggage	1-3 years	RR	SR-2022
HLW	SR	SR-HL05, Vitrification	Enhance equipment design and operability of the DWPF Melter System; Increase melt rate in DWPF melter	1-3 years	RR	SR-2023

O.10.2 Science and Technology Needs Summary

Waste/Type Problem Area	Site	PBS Project Name	Description of Science/Technology Need	Time Frame	Benefit Code(s)	Reference & Need Number
HLW	SR	SR-HL05, Vitrification	Upgrade DWPF Liquid Level and Density Measurements	1-3 years	ET	SR-2024
HLW	SR	SR-HL05, Vitrification	Alternative DWPF Canister Decon Techniques	1-3 years	RR	SR-2026
LLW	SR	SR-HL08, Saltstone	Caustic Recovery and Recycle	4-10 years	ET, CS	SR-2025
LLW	SR	SR-HL08, Saltstone	Process Improvements to Maximize Saltstone Waste Loading	1-3 years	CS	SR-2020
HLW	SR	SR-HL04, ITP/ESP	Evaluate Alternative Precipitation Agents and Ion Exchange Media for Decontamination of High Level Waste Salt	4-10 years	ET, CS, RR	SR-2006
HLW	SR	SR-HL04, ITP/ESP	Develop Counter-Current Decantation Process for Sludge Washing	4-10 years	RR	SR-2008
HLW	SR	SR-HL04, ITP/ESP	Hydroxide Flowsheet for ITP Operations	1-3 years	CS, RR	SR-2016
HLW	SR	SR-HL04, ITP/ESP	Develop Alternatives to Monosodium Titanate for Alkaline Strontium and Actinide Removal	1-3 years	RR	SR-2018
NUCLEAR MATERIALS SEPARATION						
Neptunium	SRS	SR-NM05, SR-NM03, SR-NM06	Neptunium Vitrification		ET, RR, CS	
RF Ash	SRS	SR-NM02, SR-NM03, SR-NM06	(silver dissolver)		ET, RR	
Americium / Curium	SRS	SR-NM01, SR-NM03, SR-NM06	NDA Method for Am/Cm cannisters		ET	
SPENT NUCLEAR FUEL						
SNF	SRS	Basin/Wet Storage	Perform corrosion surveillance of SNF in basin storage	1-3 years	ET	EM67 TIP,

O.10.2 Science and Technology Needs Summary

Waste/Type Problem Area	Site	PBS Project Name	Description of Science/Technology Need	Time Frame	Benefit Code(s)	Reference & Need Number
		*All	Develop technical basis for basin water quality standards	1-3 years	ET	Technology Integration Plan, DOE/SNF/PP-Revision 1 (All)
			Develop life prediction model for SNF in basin storage	1-3 years	ET	
			Determine potential for MIC of SNF during basin storage	1-3 years	RR	
			Determine or develop appropriate on-line water chemistry capabilities	1-3 years	CS	
			Develop acceptance criteria for FRR	1-3 years	ET	
			Develop canning technologies for failed or highly degraded fuels	1-3 years	ET	
			Develop on-line corrosion monitoring probes on SNF	1-3 years	CS	
			Develop probes for determination of microbial activity	1-3 years	ET	
SNF	SRS	Dry Storage (all apply)	Determine of develop and validate dry storage technology for SNF	1-3 years	ET	
		Alternate Tech. Dev.	Determine the storage criteria of SNF	1-3 years	ET	
		(PBS#SR-SF-06)	Determine or develop monitoring capabilities for temperature,	1-3 years	ET	
		Transfer & Storage Service	humidity, radioactivity, radionuclide release, etc.			
		(PBS#SR-SF-09)	Determine characterization required during wet-to-dry transition	1-3 years	ET	
			Determine or develop characterization techniques to measure burn-up,	1-3 years	ET	
			fissile content, radioactive fission products, heat output, corrosion			

O.10.2 Science and Technology Needs Summary

Waste/Type Problem Area	Site	PBS Project Name	Description of Science/Technology Need	Time Frame	Benefit Code(s)	Reference & Need Number
SNF	SRS	Repository Storage (all apply)	Assemble characterization database (assay, burn-up, composition, etc.) as required by DOE orders and/or NRC regulations	4-10 years	ET	
			Determine feasibility of waste form technologies	1-3 years	ET	
		Alternate Tech. Dev. (PBS#SR-SF-06)	Develop technology for the direct and co-disposal of aluminum SNF	1-3 years	ET	
			Develop alternative dilution technologies as option to direct disposal	1-3 years	ET	
		Transfer & Storage Service (PBS#SR-SF-09)	Determine facility requirements for waste form technologies	1-3 years	ET	
			Determine characterization techniques required	1-3 years	ET	
			Waste form qualification test development and demonstration	4-10 years	ET	FRR EIS
"Wet storage technology development is applicable to all wet storage facilities currently in use: K-Basin (SR-SF01, L-Basin (SR-SF02), RBOF (SR-SF03)						
SOLID WASTE						
TRU	SRS	Transuranic Waste (PBS # SR-SW-02)	Technologies to increase Transuranic Waste Transportation Curie, Size and Weight Limits for shipment of SRS Pu-238 waste to WIPP without expensive thermal processing	1-3 years	ET, CS	SR-1001
MLLW	SRS	Mixed Waste (PBS # SR-SW-03)	Treatment processes and equipment to remove/immobilize radiological and hazardous constituents from large quantities of MLLW soils	4-10 years	CS, RR	SR-1002
MLLW	SRS	Mixed Waste (PBS # SR-SW-03)	Characterization of radiological and hazardous constituents and concentrations in mixed waste streams	4-10 years	CS, RR, ET	SR-1003

O.10.2 Science and Technology Needs Summary

Waste/Type Problem Area	Site	PBS Project Name	Description of Science/Technology Need	Time Frame	Benefit Code(s)	Reference & Need Number
MLLW	SRS	Consolidated Incinerator Facility (PBS # SR-SW-01)	Demonstration of Continuous Emissions Stack Monitors for monitoring CIF stack emissions to meet impending regulatory requirements	1-3 years	RR, CS	SR-1004
MLLW	SRS	Mixed Waste (PBS # SR-SW-03)	Equipment and techniques for representative sampling of heterogeneous hazardous waste for RCRA and radionuclide constituents	1-3 years	CS, RR	SR-1005
MLLW	SRS	Mixed Waste (PBS # SR-SW-03)	Processes and equipment to stabilize large quantities radioactive elemental mercury generated at DWPF	1-3 years	CS, RR, ET	SR-1006
TRU	SRS	Transuranic Waste (PBS # SR-SW-02)	Treatment technology for the destruction of organic constituents, volume reduction, and immobilization of high activity radioisotopes in TRU waste. This is necessary to meet TRUPACT requirements for shipment of Pu-238 wastes to WIPP	4-10 years	ET, RR	SR-1007
MLLW	SRS	Mixed Low Level Waste (PBS # SR-SW-03)	Develop alternative model for reducing conservatisms in existing Performance Assessment Limits allowing increased Shallow Land Disposal of MLLW & LLW	1-3 years	CS	SR-1008
LLW	SRS	Low Level Waste (PBS # SR-SW-04)	Treatment technology to treat/immobilize spent deionizer resins and other long lived waste to meet disposal PA requirements	1-3 years	ET	SR-1009

O.10.3 Science and Technology Development Cost Savings

Waste/Type Problem Area	Site	PBS Project Name	Science/Technology	Savings	Confidence	Source/References
ENVIRONMENTAL RESTORATION						
G&S	SARS	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06-UTR	In situ barrier performance monitoring system	1-10M	Low/Medium	Est.
G&S	SARS	ER02-FMB	Hydrogeological Control/Containment Technologies	1-10M	Low/Medium	Est.
G&S	SARS	ER06-UTR	Enhanced DNAPL removal using Hydrophobic surfaces	<100M	Low/Medium	Est.
G&S	SARS	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06-UTR	In-Situ Plasma Arc Vitrification	1-10M	Low/Medium	Est.
G&S	SARS	ER02-FMB	In-Situ Grouting of underground solvent containers	1-10M	Low/Medium	Est.
G&S	SARS	ER06-UTR	Intrinsic Root Zone Remediation of Chlorinated Solvents	1-10M	Low/Medium	Est.
G&S	SARS	ER01-FPS	Passively Induced Flow Iron Treatment System	1-10M	Low/Medium	Est.
G&S	SARS	ER02-FMB	Funnel & Gate Technology	1-10M	Low/Medium	Est.
G&S	SARS	ER02-FMB, ER06-UTR	Intrinsic Remediation of metals and radionuclides as a cleanup method of contaminated groundwater	1-10M	Low/Medium	Est.
G&S	SARS	ER01-FPS, ER02-FMB	In well vapor stripping	1-10M	Low/Medium	Est.
G&S	SARS	ER02-FMB, ER06-UTR	Tritium treatment technologies	1-10M	Low/Medium	Est.
FACILITIES DECONTAMINATION & DECOMMISSIONING						
D&D	SRS	SR-ER09 - HWCTR	Metals Recycle - SR14DD51: Stainless Steel Beneficial Reuse Demonstration	>100M	Medium	Est.

O.10.3 Science and Technology Development Cost Savings

Waste/Type Problem Area	Site	PBS Project Name	Science/Technology	Savings	Confidence	Source/References
D&D	SRS	SR-ER09 - HWCTR	Kelly Decon Machine - Decontamination Technology	1-10 M	Low	Est.
D&D	SRS	SR-ER09 - HWCTR	LTC Vacuum Blaster (grit/shot blasting) - Decontamination Technology	1-10 M *	Low	Est.
D&D	SRS	SR-ER09 - HWCTR	Alpheus 250 pelletizer (CO2 blasting) - Decontamination Technology	*	Low	Est.
D&D	SRS	SR-ER09 - HWCTR	Power Products Plastic Decon Machine - Decontamination Technology	*	Low	Est.
D&D	SRS	SR-ER09 - HWCTR	Stainless Steel Modular Decon Hut - Decontamination Technology	11-30 M	Low	Est.
D&D	SRS	SR-FA10 - R Deactivation	Niton XL Spectrum Lead Analyzer - Characterization Technology	1-10 M	Low	Est.
HIGH LEVEL WASTE						
HLW	SR	SR-HL03, Waste Removal	Alternative Salt Removal Techniques	31-100M	Medium	1
HLW	SR	SR-HL01, H-Tank Farm, SR-HL02, F-Tank Farm	In-situ Methods for Characterization of Tank Wastes	31-100M	Medium	1
HLW	SR	SR-HL03, Waste Removal	Solids Size Reduction in Waste Tanks	31-100M	Low	Est.
HLW	SR	SR-HL01, H-Tank Farm, SR-HL02, F-Tank Farm	Demonstrate Alternative Filtration Technology to Replace HEPA Filters	31-100M	Low	Est.
HLW	SR	SR-HL01, H-Tank Farm, SR-HL02, F-Tank Farm	In-Tank Corrosion Probe Development	11-30M	Low	Est.
HLW	SR	SR-HL05, Vitrification	Optimize Waste Loading for DWPF Glass	>100M	Medium	1
HLW	SR	SR-HL05, Vitrification	Develop Lower cost Hight Cajpacity Melters for DWPF Which are Consistent with Remote Operability Requirements	>100M	Medium	1

O.10.3 Science and Technology Development Cost Savings

Waste/Type Problem Area	Site	PBS Project Name	Science/Technology	Savings	Confidence	Source/References
HLW	SR	SR-HL05, Vitrification	Develop DWPF Analytical Methods to Improve Attainment	>100M	Medium	1
LLW	SR	SR-HL08, Saltstone	Caustic Recovery and Recycle	31-100M	Medium	1
LLW	SR	SR-HL08, Saltstone	Process Improvements to Maximize Saltstone Waste Loading	11-30M	Low	Est.
HLW	SR	SR-HL04, ITP/ESP	Evaluate Alternative Precipitation Agents and Ion Exchange Media for Decontamination of High Level Waste Salt Solutions	>100M	Medium	1
HLW	SR	SR-HL04, ITP/ESP	Hydroxide Flowsheet for ITP Operations	31-100M	Medium	1
SPENT NUCLEAR FUEL						
SNF	SRS	Basin/Wet Storage *All	Basin corrosion surveillance programs and water chemistry effects on SNF Life prediction in basin storage Potential for Microbiological Influenced Corrosion (MIC) Develop acceptance criteria for FRR Development of canning technology	>$100M	Low	Est.
SNF	SRS	Dry Storage (all apply) Alternate Tech. Dev. (PBS#SR-SF-06) Transfer & Storage Service (PBS#SR-SF-09)	Drying/Storage Criteria - Effects of temperature, humidity, and radiation on SNF degradation Instrumentation to evaluate SNF performance Validation of dry storage criteria Characterization requirements of SNF Characterization techniques development	>$200M	Low/Medium	Est.
SNF	SRS	Repository Storage (all) Alternate Tech. Dev. (PBS#SR-SF-06) Transfer & Storage Service (PBS#SR-SF-09)	Direct/co-disposal technology development Facility functional requirements Waste form feasibility assessment Waste form standardized qualification test protocol dev. Characterization database and techniques development	$500M (Assuming direct / co-disposal vis-a-vis advanced treatment)	Medium	Est.

O.10.3 Science and Technology Development Cost Savings

Waste/Type Problem Area	Site	PBS Project Name	Science/Technology	Savings	Confidence	Source/References
* Wet storage technology development is applicable to all wet storage facilities currently in use: K-Basin (SR-SF01), L-Basin (SR-SF02), RBOF (SR-SF03)						
SOLID WASTE						
TRU	SRS	Transuranic Waste (PBS # SR-SW-02)	Technologies to increase Transuranic Waste Transportation Curie, Size and Weight Limits for shipment of SRS Pu-238 waste to WIPP without expensive thermal processing (SRS Need SR-1001)	> $100 M ($600 M - 800 M)	Low	EM IntReport
MLLW	SRS	Mixed Waste (PBS # SR-SW-03)	Treatment processes and equipment to remove/immobilize radiological and hazardous constituents from large quantities of MLLW soils (SRS Need SR-1002)	$11-30 M	Low	Est.
MLLW	SRS	Mixed Waste (PBS # SR-SW-03)	Characterization of radiological and hazardous constituents and concentrations in mixed waste streams (SRS Need SR-1003)	$11-30 M	Low	Est.
MLLW	SRS	Consolidated Incinerator Facility (PBS # SR-SW-01)	Demonstration of Continuous Emissions Stack Monitors for monitoring CIF stack emissions to meet impending regulatory requirements (SRS Need SR-1004)	$1-10 M	Low	Est.
MLLW	SRS	Mixed Waste (PBS # SR-SW-03)	Equipment and techniques for representative sampling of heterogeneous hazardous waste for RCRA and radionuclide constituents (SRS Need SR-1005)	$1-10 M	Low	Est.
MLLW	SRS	Mixed Waste (PBS # SR-SW-03)	Processes and equipment to stabilize large quantities radioactive elemental mercury generated at DWPF (SRS Need SR-1006)	> $100 M	Low	Est.
MLLW	SRS	Mixed Low Level Waste (PBS # SR-SW-03)	Develop alternative model for reducing conservatisms in existing Performance Assessment Limits allowing increasedShallow Land Disposal of MLLW & LLW (SRS Need SR-1008)	> $100 M	Low	Est.

Section IX

Site Baseline Summary

S. - Site Baseline Summary

FILL IN SHADED AREAS ONLY

S.1. Site Name: Savannah River Site

S.2.		Release Sites	Waste	Materials	Facilities	Overall
	Planned Completion Date:					
	Forecast Completion Date:					
	Actual Completion Date:					

S.3. EM Site End State: The end state status of the projects is such that no significant land use changes are project through 2006 as a result of the ten year planning effort. While progress will be made to eliminate mortgage requirements as much as possible, the land use designations will remain basically unchanged for any particular project area. Significant changes in land use designations may occur beyond the ten year period and will be addressed as the long range comprehensive plan for the site is developed Development of this plan is anticipated to commence in the fall of 1997 and be completed in 9-12 months. Stakeholder involvement in future land use decisions has already begun with the Savannah River Citizens Advisory Board providing suggestions for future land use. As the future plan is developed, stake holders will be continually involved in the process.

S.4 Future Site Stewardship: Site boundaries should remain unchanged, and the land should remain under the ownership of the federal government,: consistent with the site's designation as the first National Environmental Research Park.

S.5. Internal Land Use Performance Measures

	Units	Total	Prior to 1997	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007-2010	2011-2015	2016-2020	2021-2025
Total EM-encumbered Land	acres	198,000.0															
Land Available for Alternative Future Use	acres	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Historical Land Released for Alternative Use	acres		0.0														
Historical Land Released for Public Use	acres		1,600.0														
Land Intended to be Released for Public Use	acres	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

S.6. External Land Use Performance Measures

		Applicable Uses							Long-Term Institutional Control Needs		
Geographic Area	**Total Acres**	**Agricultural**	**Residential**	**Industrial**	**Open Space**	**Controlled Access**	**Medium Type**	**Residual Contamination**	**Start Date**	**Action**	**Responsible Entity**
Total Site	198,000	0	0	13,347	181,000	3,653	All	Residual contamination for both industrial & non-industrial areas include various types of chemical & radiological	Oct-96	Maintain fences, markers and security forces.	DOE

2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Comments

S.7. Site Assumptions

Assumption #	Assumption	Project ID #'s Affected	Impact of Assumption
		See Attached Spreadsheet	

S.7 Site Assumptions Cont.

Assumption #	Assumption	Project ID#'s Affected	Impact of Assumption
DOE SAVANNAH RIVER OPERATIONS			
SR-DO-001	Completion of bridge 603-2G at 5/97; Project completion at end of FY1998	SR-DO001	
SR-DO-002	FY 2001 The new APSF in 200F will be operational at the end of FY 2001	SR-DO002	
SR-DO-003	FY 2002 A major realignment of protective force requirements.	SR-DO002	
SR-DO-004	FY 2002 New transfer and storage facility will begin operations with a requirement for 2 posts (9FTEs).	SR-DO002	
SR-DO-005	Timber management functions cannot be conducted using Environmental Management funding.	SR-DO003	
SR-DO-006	Due to constrained targets in FY 1998, projects will be curtailed.	SR-DO003	
SR-DO-007	Funding will be drastically reduced over the next 10 years	SR-DO004	
SR-DO-008	Funding for National Training Center of Excellence is included, per HQ direction.	SR-DO006	
SR-DO-009	Current population levels are not fixed due to DOE downsizing. Program Direction is not constant.	SR-DO006	
SR-DO-010	16 EM FTEs will be converted to DP FTEs. Assumed staffing level of 457 for FY 2000-2006.	SR-DO006	
SR-DO-011	Spent Nuclear Fuel Program Support which DOEcommitted to pay under the FRR SNF EIS.	SR-DO007	
SR-DO-012	Includes transferred scope of work from HQ with no additional funding provided (SCUREF, Massie, Chair, MUSC).	SR-DO007	

ENVIRONMENTAL RESTORATION

S.7 Site Assumptions Cont.

Assumption #	Assumption	Project ID#'s Affected	Impact of Assumption
SR-ER-002	Meets all Regulatory commitments in the approved FFA dated 1/20/97	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	
SR-ER-003	The LCCEs cost estimates assumptions were based on the future land use for the site being "Industrial"	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	
SR-ER-004	No future use of Reactor Disassembly Basins.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	
SR-ER-005	With Regulator approval, potentially low and medium risk projects could be delayed to accelerate ones with higher risk.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	Completion of the remediation of high risk sites in approximately 10 years.
SR-ER-006	Site evaluation per year was based on DOE-SR request to complete all site evaluation by FY2001.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	Increase cost
SR-ER-007	Site Evaluations will be approximately 40 per year vs. Regulator approved lesser number per year.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	Acceleration of the program
SR-ER-008	Site Priority based on Regulatory Commitments as derived from risk studies.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	Disciplined Operations
SR-ER-009	Site Evaluations: Basis for Numbers: There are 199 sites left to evaluate. There will be a total of 63 sites added in Appendix C.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	
SR-ER-010	Waste from these 63 sites will be associated with other operable units. Therefore the waste volume from these sites will be negligible as compared to the operable units. Number of sites move to remediation is based on future land use being industrial.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	

S.7 Site Assumptions Cont.

Assumption #	Assumption	Project ID#'s Affected	Impact of Assumption
SR-ER-011	75% of sites in the Site Evaluation Program will receive a " no-further action" status. Of the 25% that will require additional action, 80% of these will require remediation.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	
SR-ER-012	All groundwater units will require remediation.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	
SR-ER-013	The funding request does not include potential damage assessments assessed by Trustees.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	Additional funding will be needed if damage is assessed.
SR-ER-014	Waste Charge Back Fees are included in the project schedules.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	
SR-ER-015	Post FY06 ground water clean up are not included in this plan.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	Additional Funding may be needed
SR-ER-016	No Decontamination & Decommissioning work is included in this plan.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	Additional funding would be needed to do D&D work
SR-ER-017	Execution of this plan is based on adequate funding and regulatory support of the accelerated work scope and schedules.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	Lower funding would result in schedule extensions and possible regulatory penalties.
SR-ER-018	Early Actions may require additional follow up as required by regulations.	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	
SR-ER-019	New Technologies with external funds do not have corresponding program funds for development	ER01-FPS, ER02-FMB, ER03-LTR, ER04-PB, ER05-SC, ER06 UTR, ER07-PM	Additional funding may be needed.

S.7 Site Assumptions Cont.

Assumption #	Assumption	Project ID#'s Affected	Impact of Assumption
FACILITIES DEACTIVATION & DECOMMISSIONING			
SR-FA-001	Evaporation is assumed to be an acceptable disposal method for R Reactor disassembly basin water with low tritium levels.	SR-FA10	Raises deactivation costs.
SR-FA-002	Project costs are associated with the post deactivation S&M for 247-F.	SR-FA16	N/A
SR-FA-003	Estimates are based on FY97 AOP ABC estimates for S&M post deactivation.	SR-FA16	N/A
SR-FA-004	Project will be adjusted as additional F Area facilites complete deactivation and are added to long term monitoring (>FY2007).	SR-FA16	N/A
SR-FA-005	Heavy water inventory will be removed from P and C Reactor -40 storage tanks by FY98.	SR-FA20	Forces P and C Reactor S&M costs to remain at high levels. Elimination of heavy water stocks in these facilities will eliminate the need to maintain monitoring equipment and ventilation systems, and will reduce the frequency of surveillance.
HIGH LEVEL WASTE			
SR-HL06-01	Fed. HLW Repository Open by FY15	SR-HL06	More HLW Canister storage needed if repository is delayed.
NUCLEAR MATERIALS STABILIZATION			
SR-NM01-A1	Two years are enough for testing, design, fabrication, installation, and testing of Np vitrification process.	SR-NM01	
SR-NM01-A2	Extend Am/Cm completion to FY00.	SR-NM01	
SR-NM01-A3	Add S/U of FA-Line in FY01 with MK16/22 processing following in FY03, completion in FY06.	SR-NM01	
SR-NM01-A4	Delete HEU blending.	SR-NM01	

S.7 Site Assumptions Cont.

Assumption #	Assumption	Project ID#'s Affected	Impact of Assumption
SR-NM01-A5	Delay 235F vault movements from FY99 to FY01, completion in FY03.	SR-NM01	
SR-NM01-A6	Install new FBL dissolver upgrades for residue processing in FY00, completion in FY06.	SR-NM01	
SR-NM01-A7	Eliminate Ops standby funds for FCAN, FBL in FY07.	SR-NM01	
SR-NM02-A1	Chemicals/solvents can be disposed of / removed without extensive treatment.	SR-NM02	
SR-NM02-A2	Delete MK16/22 processing.	SR-NM02	
SR-NM02-A3	Delete HEU blending.	SR-NM02	
SR-NM02-A4	Reduce HCAN Ops standby funding to 50% in FY99, then 0% in FY03	SR-NM02	
SR-NM02-A5	Eliminate Ops standby funds for H area in FY04.	SR-NM02	
SR-NM05-A1	Np solutions are unsuitable for extended storage because of the potential for events that could result in releases of radioactive materials to the environment, increased exposure to facility worker or exposure to the public.	SR-NM05	
SR-NM05-A2	The DOE has identified the current inventory of Np-237 as a programmatic material.	SR-NM05	
SR-NM05-A3	Utilize AM/CM facility with required facility modifications and no ORR required for switch to Neptunium.The material may be transfered as a solution from H to F-canyon or converted to a low-fired oxide in HB-Line and transfered to F-Canyon, timely to meet	SR-NM05	
SR-NM05-A4	Requires development of container .	SR-NM05	
SR-NM05-A5	NP-237 storage/shipping package will be available.	SR-NM05	
SR-NM05-A6	A vault suitable for interim storage will be available.	SR-NM05	

S.7 Site Assumptions Cont.

Assumption #	Assumption	Project ID#'s Affected	Impact of Assumption
SR-NM07-A1	New facility to house approximately 35,000 drums of material in inventory.	SR-NM07	
SR-NM07-A2	The blenddown of 25 metric tons of HEU will utilize existing LEU solutions and material in inventory at Fernald. No drums of DU will be consumed in this initiative.	SR-NM07	
SR-NM01-A8	The funding shown for this project assumes that DP will contribute $6.5MM for the storage costs of material still under DP.	SR-NM01	SR-NM01 will have to be increased to pay for storage of DP material if this DP funding is not provided.
SPENT NUCLEAR FUEL			
SR-SF001	Will be deinventoried of all legacy materials by FY2005, HEU, Heavy Water, SNF	SR-SF-01	Prolongs wet basin storage and delays mortgage savings due to insufficient funding in the canyons.
SR-SF-002	Will be deinventoried of Heavy Water and SNF by FY2010. The final disposition decision for the HEU has not been finalized. The HEU will remain stored in L Reactor building pending the decision	SR-SF-02	Prolongs wet basin storage and delays mortgage savings due to insufficient fundingin the Alternate Technology Project (SR-SF-06).
SR-SF-003	Will be deinventoried of SS/Zirc beginning in FY2002. Will be deinventoried of 94-1 fuel (EBRII (EBRII/TRR) in FY2009. Will be deinventoried of offsite fuel by FY2012	SR-SF-03	Prolongs wet basin storage and delays mortgage savings due to insufficient fundingin the Alternate Technology Project (SR-SF-06).
SR-SF-004	S&M will continue, RW will operate through March 2000 funded from heavy water sales revenues. DW will operate based on a funds available basis, TPF will operate through FY97, and MPF will operate into FY98.	SR-SF-04	Funds to operate these facilities are not currently available; however, DOE-HQ has agreed to allow the use of revenues from projected heavy water sales to offset the cost.
SR-SF-005	Inventories will be maintained until after DOE makes the Tritium Production Source decision. Assume sales will allow for deinventory of inventories.	SR-SF-05	It is preferable to dispose of inventories through sales. Any remaining inventories will require neutralization prior to disposal.

S.7 Site Assumptions Cont.

Assumption #	Assumption	Project ID#'s Affected	Impact of Assumption
SR-SF-006	Currently not funded in the required time frame to support the site Specific EIS, the anticipated Record of Decision requirements and the Transfer and Storage Service startup and basin deinventory schedules.	SR-SF-06	Prolongs wet basin storage and delays mortgage savings due to insufficient funding in the Alternate Technology Project (SR-SF-06).
SR-SF-007	Will be completed in FY98	SR-SF-07	Continuation of prior years project to enhance basin receipt operations and storage capacity.
SR-SF-008	Line Item Project has been rescoped and converted to CE/GPP and included in the L Reactor SNF Project (SR-SF02). The project is recommended.	SR-SF-08	
SR-SF-009	Privatized Project TEC funds in FY2000.	SR-SF-09	Dependent on Technology Development, EIS and NEPA activities not funded in SR-SF06.
SR-SF-010	Conceptual Design funds in FY1999.	SR-SF-10	Required to assure continued equipment and safe operations in RBOF.

S.8. Additional Opportunities Addressed:

S.9. Stakeholder Involvement:

For over two years the SRS Future Use Project Team sought stakeholder input on the processes to be used in obtaining and reporting their input. Based on that input, SRS used a variety of public participation activities to share information and obtain stakeholder-preferred future use recommendations. These activities included public meetings, presentations to civic and community groups, briefings for elected officials, and working with interested citizens groups such as the SRS Citizens Advisory Board (CAB) and Citizens for Environmental Justice.

The SRS CAB, the site specific advisory board, was an essential part of this process. A subcommittee, called Risk Management and Future Use Subcommittee, was formed to work on this project and all public meetings were sponsored both by the site and this

S.8 Additional Opportunities Addressed Cont.	
Project ID#'s Affected	**Additional Opportunities Addressed**
NUCLEAR MATERIALS STABILIZATION	
SR-NM01, SR-NM02, SR-NM07	HEU Blend down
SR-NM01, SR-NM02, SR-NM03, SR-NM04, SR-NM06	RF oxide, scrub alloy, ash, salts, flourides stabilization
SPENT NUCLEAR FUEL	
SR-SF09	Combine the TSS interim storage requirements with the second (and later?) Glass Waste Storage Building(s). These two (o more) facilities are designed to store road ready wastes destined for the federal repository.
SR-SF09 - (Cont'd)	Combining the facilities may offer the potential for significant savings through elimination of duplicate costs for design, site preparation, canister handling equipment, cask handling facilities and equipment, ventilation systems, monitoring
SR-SF09 - (Cont'd)	systems, and operating infrastructure (management, procedures, safety programs, etc.). An “order of magnitude” estimate of potential cost savings is $50 Million.

Intersite Materials/Waste Transfers

S.10. Materials/Waste Inflows: To be Completed by Site Receiving Off-site Materials or Waste

Origination Site	Material/Waste Type	For the purpose of:	Site-Designated Project ID Numbers	Specify Facility (if known)	Total Quantity	Units	Packaging Type	Shipping Method	1997	1998	1999	2000	2001	2002
					0.0									
					0.0									
					0.0									
					0.0									
					0.0									
					0.0									
					0.0									
					0.0									
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					0.0									
					0.0									
					0.0									
					0.0									
					0.0									
					0.0									
					0.0									

S.11. Materials/Waste Outflows: To be Completed by Site Shipping Materials or Waste Off-site

Destination Site	Material/Waste Type	For the purpose of:	Site-Designated Project ID Numbers	Specify Facility (if known)	Total Quantity	Units	Packaging Type	Shipping Method	1997	1998	1999	2000	2001	2002
					0.0									
					0.0									
					0.0									
					0.0									
					0.0									
					0.0									
					0.0									
					0.0									
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					0.0									
					0.0									
					0.0									
					0.0									
					0.0									

2003	2004	2005	2006	2007-2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070

2003	2004	2005	2006	2007-2010	2011-2015	2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070

S.10 Materials/Waste Inflows Cont.: To be completed by Site Receiving Off-site Materials or Waste

Origination Site	Material/Waste Type	For the purpose of:	Site-Designated Proj. ID Numbers	Specify Facility (If known)	Total Qty.	Units	Packaging Type	Shipping Method
NUCLEAR MATERIALS STABILIZATION								
RF	Scrub Alloy	Stabilization	SR-NM01	F-Canyon	180	cans	dissolvable can	6M
RF	Residues (Sand,Slag & Cru)	Stabilization	SR-NM01	F-Canyon	1500	cans	dissolvable can	9975
RF	Fluorides	Stabilization	SR-NM01	F-Canyon	600	cans	dissolvable can	9975
OR - Y12	HEU	Dilution to LEU	SR-NM02	H-Canyon	25	MT	shipping cont.	
RF	ASH	Stabilization	SR-NM01	F-Canyon	10400	cans	dissolvable can	9975
RF	MSE Salts	Stabilization	SR-NM01	F-Canyon	300	cans	dissolvable can	6M
RF	ER Salts	Stabilization	SR-NM01	F-Canyon	450	cans	dissolvable can	6M
SPENT NUCLEAR FUEL								
Foreign Research	Aluminum	NonProliferation	SR-SF02, SR-SF03,	L Basin, RBOF,	19,747	MTREs	Shipping Casks	Ship, Rail, Truck
Reactor Sites	Based SNF	& Stabilization & Repository Emplacement Preparation	SR-SF06, SR-SF09	Alt. Tech., TSS				
Domestic & DOE	Aluminum	NonProliferation	SR-SF02, SR-SF03,	L Basin, RBOF,	17,790	MTREs	Shipping Casks	Ship, Rail, Truck
Research Reactor Sites	Based SNF	& Stabilization & Repository Emplacement Preparation	SR-SF06, SR-SF09	Alt. Tech., TSS				

S.10 Materials/Waste Inflows Cont.: To be completed by Site Receiving Off-site Materials or Waste

Origination Site	Material/Waste Type	For the purpose of:	Site-Designated Proj. ID Numbers	Specify Facility (If known)	Total Qty.	Units	Packaging Type	Shipping Method

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007-2010	2011-2015

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007-2010	2011-2015

2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070

2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070

S.11 Materials/Waste Outflows Cont.: To be completed by Site Shipping Materials or Waste Off-site

Destination Site	Material/Waste Type	For the purpose of:	Site-Designated Project ID Numbers	Specify Facility (If known)	Total Qty.	Units	Packaging Type	Shipping Method
HLW								
Fed. HLW Repository	HLW	Long Term Stor.	Fed. HLW Repository	Fed. HLW Repository	3709	cubic meters		rail
SNF								
Repository	Aluminum Based SNF	Emplacement, Final Disposition	SR-SF09	TSS	37,537	MTREs	Cannister	Truck, Rail

1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007-2010	2011-2015
											331

2016-2020	2021-2025	2026-2030	2031-2035	2036-2040	2041-2045	2046-2050	2051-2055	2056-2060	2061-2065	2066-2070
1656	1722									

Section X

Project/ADS Crosswalk

ACCELERATING CLEANUP PROJECT LISTING WITH ASSOCIATED ADS

*	PROJ. #	ADS #	TYP	PROJECT TITLE	PRG	DOE AM	WSRC VP
1	SR-HL01	SR0031AA00 SR0032AA00 SR0037GP00 SR00310LI00	P	H Tank Farm	HL	F.R. McCoy	A. B. Scott
2	SR-HL02	SR0031AA00 SR0033AA00 SR0037GP00	P	F Tank Farm	HL	F.R. McCoy	A. B. Scott
3	SR-HL03	SR0032AA00 SR0033AA00 SR0038LI00 SR0314LI00	P	Waste Removal Project	HL	F.R. McCoy	A. B. Scott
4	SR-HL04	SR0031AA00 SR0034AA00 SR0037GP00 SR0038LI00	P	ITP/ESP Operations	HL	F.R. McCoy	A. B. Scott
5	SR-HL05	SR0021AA00 SR0022AA00 SR0024GP00 SR0025LI00 SR0026LI00	P	Vitrification Project	HL	F.R. McCoy	A. B. Scott
6	SR-HL06	SR0021AA00 SR0022AA00 SR0024GP00 SR0025LI00	P	Glass Waste Storage	HL	F.R. McCoy	A. B. Scott
7	SR-HL07	SR0031AA00 SR0035AA00 SR0037GP00	P	ETF Operations	HL	F.R. McCoy	A. B. Scott
8	SR-HL08	SR0021AA00 SR0023AA00 SR0024GP00	P	Saltstone Operations	HL	F.R. McCoy	A. B. Scott
84	SR-HL09	SR0038LI00 SR0315LI00 SR0316LI00	P	Tank Farm Safety Projects	HL	F.R. McCoy	A. B. Scott
9	SR-SW01	SR-413-AA SR-45-LI	P	Consolidated Incinerator Facility	SW	A. L. Watkins	W. S. Kelly
10	SR-SW02	SR-426-AA	P	Transuranic Waste	SW	T. F. Heenan	W. S. Kelly
11	SR-SW03	SR-424-AA	P	Mixed Low Level Waste Project	SW	T. F. Heenan	W. S. Kelly
12	SR-SW04	SR-425-AA	P	Low Level Waste Project	SW	T. F. Heenan	W. S. Kelly
13	SR-SW05	SR-423-AA	P	Hazardous Waste Project	SW	T. F. Heenan	W. S. Kelly
14	SR-SW06	SR-422-AA	P	Sanitary Waste	SW	T. F. Heenan	W. S. Kelly
15	SR-SW07	SR-7770-00	O	Pollution Prevention	SW	T. F. Heenan	W. S. Kelly
16	SR-ER01	SR0504AA SR0501AA SR0502AA SR0508AA SR0510AA	P	Flood Plain Swamp Project	ER	T. F. Heenan	R. R. Harbert

* = Corresponding HQ Spreadsheet

P = Projectized; O = Operating

ACCELERATING CLEANUP PROJECT LISTING WITH ASSOCIATED ADS

*	PROJ. #	ADS #	TYP	PROJECT TITLE	PRG	DOE AM	WSRC VP
		SR0509AA SR0517AA					
17	SR-ER02	SR0507AA SR0502AA SR0504AA SR0506AA SR0505AA SR0508AA SR0512AA SR0510AA SR0514AA SR0515AA	P	Four Mile Branch Project	ER	T. F. Heenan	R. R. Harbert
18	SR-ER03	SR0505AA SR0503AA SR0508AA SR0509AA SR0513AA SR0514AA	P	Lower Three Runs Project	ER	T. F. Heenan	R. R. Harbert
19	SR-ER04	SR0504AA SR0505AA SR0509AA SR0508AA SR0513AA SR0510AA SR0514AA	P	Pen Branch Project	ER	T. F. Heenan	R. R. Harbert
20	SR-ER05	SR0504AA SR0509AA SR0514AA SR0508AA	P	Steel Creek Project	ER	T. F. Heenan	R. R. Harbert
21	SR-ER06	SR0506AA SR0504AA SR0501AA SR0507AA SR0503AA SR0509AA SR0508AA SR0510AA SR0511AA SR0513AA SR0516AA SR0518AA	P	Upper Three Runs Project	ER	T. F. Heenan	R. R. Harbert
22	SR-ER07	SR0701AA SR0801AA	O	Program Management (Environmental Resto	ER	T. F. Heenan	R. R. Harbert

ACCELERATING CLEANUP PROJECT LISTING WITH ASSOCIATED ADS

*	PROJ. #	ADS #	TYP	PROJECT TITLE	PRG	DOE AM	WSRC VP
23	SR-ER08	SR-610-AA	P	Decommissioning Projects	ER	T. F. Heenan	R.V. Carlson
24	SR-ER09	SR-608-AA	P	HWCTR Project	ER	T. F. Heenan	R.V. Carlson
25	SR-TD01		P	TD Coordination and Management	TD	T. F. Heenan	S. Wood
26	SR-NM01	SR-6960-01 SR-6960-02 SR-6960-03 SR-6960-05	O	F-Area Stabilization Project	NM	A.L. Watkins	J. F. Jordan
27	SR-NM02	SR-6960-07 SR-6960-05 SR-6960-08	O	H-Area Stabilization Project	NM	A.L. Watkins	J. F. Jordan
28	SR-NM03	SR-6965-17	P	Actinide Packaging Line Item	NM	A.L. Watkins	J. F. Jordan
29	SR-NM04	SR-6965-13	P	Canyon Exhaust Line Item	NM	A.L. Watkins	J. F. Jordan
30	SR-NM05		P	Neptunium (Np) Vitrification	NM	A.L. Watkins	J. F. Jordan
31	SR-NM06	SR-6960-10	P	Nuclear Material Storage	NM	A.L. Watkins	J. F. Jordan
32	SR-NM07		O	Depleted Uranium Storage	NM	A.L. Watkins	J. F. Jordan
33	SR-SF01	SR692001	O	K-Reactor Spent Nuclear Fuel Project	SF	A.L. Watkins	I. B. New
34	SR-SF02	SR692002	O	L-Reactor Spent Nuclear Fuel Project	SF	A.L. Watkins	I. B. New
35	SR-SF03	SR692007	O	RBOF Spent Nuclear Fuel Project	SF	A.L. Watkins	I. B. New
36	SR-SF04	SR692004	O	Heavy Water Process	SF	A.L. Watkins	I. B. New
37	SR-SF05	SR692011	O	Heavy Water Operations	SF	A.L. Watkins	I. B. New
38	SR-SF06	SR6991SF	P	Alternate Tech Project	SF	A.L. Watkins	I. B. New
39	SR-SF07	SR692509	P	Disassembly Basin Upgrade Line Item	SF	A.L. Watkins	I. B. New
40	SR-SF08	SR692513	P	Sand Filter Refurbish Line Item	SF	A.L. Watkins	I. B. New
41	SR-SF09	SR6991LI	P	Spent Nuclear Fuel Transfer and Storage	SF	A.L. Watkins	I. B. New
42	SR-SF10	SR692512	P	RBOF Process Support Line Item	SF	A.L. Watkins	I. B. New
43	SR-FA01	SR-6960-6	P	247-F Deactivation Project	FA	A.L. Watkins	R. V. Carlson
44	SR-FA02		P	F Canyon Deactivation Project	FA	A.L. Watkins	R. V. Carlson
45	SR-FA03		P	FB Line Deactivation Project	FA	A.L. Watkins	R. V. Carlson
46	SR-FA04		P	H Canyon Deactivation Project	FA	A.L. Watkins	R. V. Carlson
47	SR-FA05		P	HB Line Deactivation Project	FA	A.L. Watkins	R. V. Carlson
48	SR-FA06		P	235-F Deactivation Project	FA	A.L. Watkins	R. V. Carlson
49	SR-FA07		P	Old HB Line Deactivation Project	FA	A.L. Watkins	R. V. Carlson
50	SR-FA08	SR-0612-AA	P	P Reactor Deactivation Project	FA	A.L. Watkins	R. V. Carlson
51	SR-FA09	SR-0613-AA	P	C Reactor Deactivation Project	FA	A.L. Watkins	R. V. Carlson
52	SR-FA10	SR-0601-AA	P	R Reactor Deactivation Project	FA	A.L. Watkins	R. V. Carlson
53	SR-FA11		P	K Reactor Deactivation Project	FA	A.L. Watkins	R. V. Carlson
54	SR-FA12		P	L Reactor Deactivation Project	FA	A.L. Watkins	R. V. Carlson
55	SR-FA13		P	RBOF Project Deactivation Project	FA	A.L. Watkins	R. V. Carlson
56	SR-FA14		P	D Area Deactivation Project	FA	A.L. Watkins	R. V. Carlson
57	SR-FA15	SR-6940-1	P	M Area Deactivation Project	FA	A.L. Watkins	R. V. Carlson
58	SR-FA16	SR-6960-6	O	F Area Monitoring Project	FA	A.L. Watkins	R. V. Carlson
59	SR-FA17		O	H Area Monitoring Project	FA	A.L. Watkins	R. V. Carlson
60	SR-FA18	SR-6940-1	O	M Area Monitoring Project	FA	A.L. Watkins	R. V. Carlson
61	SR-FA19		O	D Area Monitoring Project	FA	A.L. Watkins	R. V. Carlson
62	SR-FA20	SR-0612-AA SR-0613-AA	O	Reactor Monitoring Projects	FA	A.L. Watkins	R. V. Carlson

* = Corresponding HQ Spreadsheet

P = Projectized; O = Operating

ACCELERATING CLEANUP PROJECT LISTING WITH ASSOCIATED ADS

*	PROJ. #	ADS #	TYP	PROJECT TITLE	PRG	DOE AM	WSRC VP
		SR-6920-12 SR-0601-AA					
63	SR-FA21		O	Heavy Water Storage Monitoring	FA	A.L. Watkins	R. V. Carlson
64	SR-FA22		O	RBOF Monitoring Project	FA	A.L. Watkins	R. V. Carlson
65	SR-IN01	SR7268	P	Plantwide Fire Protection Line Item	IN	M.B. Armstrong	C. M. Hammond
66	SR-IN02	SR7269	P	Operations Support Facility Line Item	IN	M.B. Armstrong	C. W. Thiessen
67	SR-IN03	SR7270	P	Plant Maintenance Line Item	IN	M.B. Armstrong	C. W. Thiessen
68	SR-IN04	SR7259	P	Domestic Water Line Item	IN	M.B. Armstrong	C. W. Thiessen
69	SR-IN05	SR7262	P	Building Chillers Line Item	IN	M.B. Armstrong	C. W. Thiessen
70	SR-IN06	SR7263	P	Radio Trunking System Line Item	IN	M.B. Armstrong	C. W. Thiessen
71	SR-IN07	SR7264	P	Site Road Infrastructure	IN	M.B. Armstrong	C. W. Thiessen
72	SR-IN08	SR6985-19	P	High Level Drain Lines Line Item	IN	M.B. Armstrong	C. M. Hammond
73	SR-IN09	SR7265	P	Health Physics Support Line Item	IN	M.B. Armstrong	F. B. Davis
74	SR-IN10	SR7267	P	Environmental Monitoring Lab Line Item	IN	M.B. Armstrong	F. B. Davis
75	SR-DO01	SR-7264	P	DOE Projects Line Item	IN	M.B. Armstrong	N/A
76	SR-IN11	SR6980-2	P	Infrastructure Line Item	IN	M.B. Armstrong	C. W. Thiessen
77	SR-IN12	SR7200-1 SR7200-2 SR7200-3	O	Operating Project	IN	M.B. Armstrong	C. W. Thiessen
85	SR-IN13	SR6980-2	P	Decontamination of Labs	IN	M.B. Armstrong	S. Wood
78	SR-DO02	SR-6930-1 SR-6930-2 SR-6930-7 SR-6970-2 SR-6970-3 SR-6970-4 SR-6970-5 SR-6970-8 SR-6915	O	WSI Landlord Project	IN	M.B. Armstrong	N/A
79	SR-DO03	SR-7255	O	Forest Service Project	IN	M.B. Armstrong	N/A
80	SR-DO04	SR-7254	O	Ecology Lab Project	IN	M.B. Armstrong	N/A
81	SR-DO05	SR-479A SR-478A SR-481A	O	DOE External Program Support	OP	J. R. Pescosolid	N/A
82	SR-DO06	SR-1000-PD SR-1000-SS	O	DOE Direction	OP	J. R. Pescosolid	N/A
83	SR-DO07	SR-7253 SR-7251 SR-6991-SF	O	DOE Program Support	OP	J. R. Pescosolid	N/A
86	SR-MC01		O	Management Challenge	MG	J. R. Pescosolid	J.J. Buggy
87	SR-MC02		O	To Be Resolved	MG	J. R. Pescosolid	J.J. Buggy

* = Corresponding HQ Spreadsheet

P = Projectized; O = Operating

Section XI

Project Baseline Summary

See Books 2-6 for Detail PBS

Section XII

Cross-funded Projects

Attachment H - GUIDANCE FOR LINKING THE PROJECT AND PROGRAM STRUCTURES FOR FY 1997 or FY 1998

After Section B.1 of the PBS has been completed, it is necessary to crosswalk dollars from the existing program structure to the new project structure only for projects that have cross-program funding in FY 1997 or FY 1998. PLEASE PROVIDE THE FOLLOWING FUNDING DATA FOR EACH REQUIRED PROJECT. Section B.1 will determine the future account where each project is placed (Environmental Restoration, Waste Management, etc.). It is assumed that some projects will include funding in both the Defense Environmental Management and Energy Supply Research and Development appropriations. Some projects may even include funding from the Uranium Enrichment Decontamination and Decommissioning account as well. Please ensure that all funds for each project are categorized and that only new budget authority for FY 1998 is included. Please do not include any anticipated carryover amounts. Should any further data be required for the Program Direction account, you will be notified.

Attachment H - GUIDANCE FOR LINKING THE PROJECT AND PROGRAM STRUCTURES FOR FY 1997 or FY 1998

Project Title: M Area Monitoring Project

Unique Site-Designated Project ID: SR-FA18

FY 1997 Appropriation

	Waste Management	Environmental Restoration	Technology Development	Nuclear Materials	Site Operations	Privatization	Total
Defense Environmental Management							
Operating Expenses	6,803				3,350		10,153
Capital Equipment							0
Construction							0
General Plant Projects							0
Total	6,803	0	0	0	3,350	0	10,153
Energy Supply, Research and Development							
Operating Expenses							0
Capital Equipment							0
Construction							0
General Plant Projects							0
Total	0	0	0	0	0	0	0
Uranium Enrichment Decontamination and Decommissioning Fund							
Operating Expenses							0
Capital Equipment							0
Construction							0
General Plant Projects							0
Total	0	0	0	0	0	0	0
Total - All Appropriations							
Operating Expenses	6,803	0	0	0	3,350	0	10,153
Capital Equipment	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
General Plant Projects	0	0	0	0	0	0	0
FY 1997 Grand Total	6,803	0	0	0	3,350	0	10,153

Attachment H - GUIDANCE FOR LINKING THE PROJECT AND PROGRAM STRUCTURES FOR FY 1997 or FY 1998

FY 1998 Appropriation

	Waste Management	Environmental Restoration	Technology Development	Nuclear Materials	Site Operations	Privatization	Total
Defense Environmental Management							
Operating Expenses	8,973				4,420		13,393
Capital Equipment							0
Construction							0
General Plant Projects							0
Total	8,973	0	0	0	4,420	0	13,393
Energy Supply, Research and Development							
Operating Expenses							0
Capital Equipment							0
Construction							0
General Plant Projects							0
Total	0	0	0	0	0	0	0
Uranium Enrichment Decontamination and Decommissioning Fund							
Operating Expenses							0
Capital Equipment							0
Construction							0
General Plant Projects							0
Total	0	0	0	0	0	0	0
Total - All Appropriations							
Operating Expenses	8,973	0	0	0	4,420	0	13,393
Capital Equipment	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
General Plant Projects	0	0	0	0	0	0	0
FY 1998 Grand Total	8,973	0	0	0	4,420	0	13,393

Appendix I

Acronym List

ACRONYM LIST

APSF	Actinide Packaging and Storage Facility
B&W	Babcock and Wilcox
BNFL	British Nuclear Fuels
BSRI	Bechtel Savannah River, Inc.
CAB	Citizens Advisory Board
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CIF	Consolidated Incinerator Facility
D&D	Decontamination and Decommissioning
DNFSB	Defense Nuclear Facilities Safety Board
DOE	Department of Energy
DOE-HQ	Department of Energy - Headquarters
DOE-SR	Department of Energy - Savannah River Operations Office
DRR	Domestic Research Reactor
DU	Depleted Uranium
DWPF	Defense Waste Processing Facility
EIS	Environmental Impact Statement
EM	Environmental Management (Program)
EMAB	Environmental Management Advisory Board
EPA	Environmental Protection Agency
ER	Environmental Restoration
FFA	Federal Facility Agreement
FRR	Foreign Research Reactor
FY	Fiscal year
HEU	High Enriched Uranium
HFIR	High Flux Isotope Reactor
HLW	High Level Waste
HWCTR	Heavy Water Components Test Reactor
IMNM	Interim Management of Nuclear Materials
INEEL	Idaho National Environmental and Engineering Laboratory
LEU	Low Enriched Uranium
M&O	Management and Operating
MD	Material Disposition
MEO	Mediated Electromechanical Oxidation (MEO)
MOA	Memorandum of Agreement
MOX	Mixed Oxide Fuel
MTRE	Material Test Reactor Equivalent
NASA	National Aerospace Administration
NEPA	National Environmental Policy Act
NMSS	Nuclear Material Stabilization and Storage
NRC	Nuclear Regulatory Commission
OMB	Office of Management and Budget
ORR	Operational Readiness Review
OYB	Out Year Budget

PBS	Project Baseline Summaries
PEIS	Programmatic Environmental Impact Statement
PSO	Principal Secretarial Officer
RBOF	Receiving Basin forOffsite Fuels
RCRA	Resource Conservation and Recovery Act
RIF	Reduction in Force
RM&FU	Risk Management and Future Use
ROD	Record of Decision
RRTTR	Research Reactor Task Team Report
S&M	Surveillance and Maintenance
SC	South Carolina
SCDHEC	South Carolina Department of Health and Environmental Control
SFSP	Spent Fuel Storage Program
SNF	Spent Nuclear Fuel
SREL	Savannah River Ecology Laboratory
SRS	Savannah River Site
SRTC	Savannah River Technology Center
TRU	Transuranic
TSS	Transfer Storage Service
TVA	Tennessee Valley Authority
TYP	Ten Year Plan
WIPP	Waste Isolation Pilot Plant
WSRC	Westinghouse Savannah River Company